## DOCTOR OF EDUCATION (EDD)

# An exploration of the depths of feedback in higher education: Bringing the beliefs of academic teachers to the surface

Gillway, Maxine

*Award date:*
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I must thank my husband, Steve, for his patience during all those weekends and holidays which I spent analysing and writing.

I dedicate this to my son, Lucas, on his twenty-first and look forward to graduating in the same year as he does.

# Abstract

The present study brings together the fields of teacher beliefs and feedback in a novel way with a view to exploring what is often described negatively as 'inconsistency', but what I conclude is much more positive 'variability', in the student experience of feedback. Rather than focusing on the student, as in much recent literature, the focus is on the observation of academic teachers' beliefs-in-action during written or oral feedback on student written work under different conditions. The inclusion of three cases across different disciplines within one institution allows an interpersonal comparison, while the inclusion of different levels of study, tasks and modes allows for intrapersonal comparisons within cases. Drawing on the critical realist concept of depth ontology, teacher beliefs are conceptualised as real entities that underlie the pedagogical process of feedback and thus have the power to shape any feedback event just as much as other more physical elements of the feedback context. The present study thus adds a vertical dimension to explanations of variability in student feedback experience and contributes to the growing literature on the ecology of the learning context.

As part of a case study approach employing multiple methods, the think aloud technique is not only key in surfacing these beliefs and revealing absences in the vertical relationship between underlying beliefs and visible practice, but also challenges existing theories of think aloud protocols as internal dialogue, revealing a valuable sociocognitive dimension.

The findings reveal that different beliefs surface to different extents under different conditions in both the focus and formulation of feedback, thus adding to our understanding of the complexity of the multidimensional dynamic belief systems. While some of these conditions were part of the research design (discipline, level, task, mode), others emerged during the study (managing dialogue, managing emotion). The study highlights the considerable challenge facing teachers who wish to create the conditions in which all students are able to engage in a quality co-constructed feedback conversation. While confirming both intrapersonal and interpersonal variation in feedback practices, it is suggested that rather than problematic inconsistency, this is a natural diversity resulting from different tasks, modes, levels of study, and interlocutors - and thus should be embraced for reasons of inclusion. This has direct implications for those involved in the policy and practice of feedback in higher education.

# 1 Introduction

## 1.1 Aims and rationale

My aim as a practitioner researcher is to help understand a practical problem in my professional world of educational leadership and in so doing perhaps address a gap in the research worlds of feedback and teacher beliefs. The practical problem that triggered this project was the variability in the quantity and quality of feedback on student written work despite local and institutional attempts to improve feedback processes through policies and staff development (see Section 3.3). The perceived helpfulness of teacher comments on student work continues to be a challenge, with students at my institution reporting satisfaction levels significantly below benchmark in both the 2019 and 2020 National Student Survey data (Office for Students, 2020). It is my own belief that by bringing different perspectives on an issue together one arrives at a better understanding of the perceived problem and, thereby, perhaps opens up new possibilities for tackling it.

In this study, I aim to bring the perspective of the teacher, and in particular their beliefs, to a feedback literature that was for many years dominated by the student perspective (Evans, 2013). Since I began this study much more has been published on the teacher role in feedback since there is now a recognition that 'without teacher feedback literacy, it is unlikely that student feedback literacy will develop' (Winstone and Carless, 2020, p. 174) and there is recognition that both teacher and student have responsibility for making the feedback partnership work (Dunworth and Sanchez, 2016; Carless, 2019). To the beliefs literature, I aim to bring more empirical evidence of the complex nature of the relationship of beliefs with each other (Buehl and Beck, 2015) and with an area of pedagogical practice that is little explored in that literature - feedback. To researchers in both areas, I aim to bring greater understanding of the methodological value of think aloud protocols for access to beliefs in action (Sasaki, 2008).

To all those puzzling over the apparent inconsistency in the student experience of feedback, whether researchers, leaders, practitioners, or students themselves, I offer Roy Bhaskar's concept of depth ontology (Archer *et al.*, 2013) as a theoretical lens for viewing the reality of feedback and for its power in explaining the absenting that occurs in the vertical relationship between the stratified layers of this reality. The underlying *real* layer of beliefs has causal powers that may or may not be exercised depending on the conditions of the *actual* layer of the feedback event, and thus may or may not be visible at the *empirical* layer of the student feedback experience. (These terms when used in the precise meaning of Critical Realist philosophy are italicised throughout.) By harnessing the real power of beliefs, we may have more constructive conversations about feedback in our attempts to develop feedback literacy.

## 1.2 Overview

This section outlines for the reader the journey they will follow through this text to understand how I have attempted to meet the aims outlined in this short introduction. Chapter 2 brings together the literature on feedback and

teacher beliefs in an attempt to show how the present study might build on existing knowledge, both conceptual and methodological, in these fields. The present moment in the evolution of research into feedback is perfect for an exploration of teacher beliefs, since this side of the socially-situated feedback partnership is no longer being neglected (Carless, 2019b) and there is a growing interest in the concept of teacher feedback literacy (Winstone and Carless, 2020) – to which these findings in the area of teacher beliefs will be of relevance. The current socio-cognitive trend in teacher beliefs research (Fives and Gregoire-Gill, 2015) is also in line with my worldview, and my findings will add to our understanding of the complex nature of teacher beliefs and their relationship with practice, both conceptually and methodologically.

Chapter 3 on research design addresses the need for trustworthiness of my research by highlighting the alignment of my worldview, strategy of enquiry and research methods. I draw on elements of both social constructivism and critical realism in my chosen strategy of case study to help explain the events observed and ultimately offer practical recommendations. This chapter gives details of the context in which the research questions emerged and the selection of cases and methods used to answer them. I address ethical considerations and explain my use of mixed methods in the collection and generation of data, and the processes of abduction and retroduction in my thematic analysis to merge theory and data and thus arrive at the best explanation for my data at this point in time (Fletcher, 2017, p. 182). The data and their interpretation are laid out in chapters 4 and 5.

Chapter 4 reports the findings from each individual case in terms of the different layers of feedback visible to the student and to the researcher before looking at the underlying individual beliefs and how these interact with feedback practice in the different conditions of that case. Chapter 5 then compares the data across cases and discusses the conditions which enable different beliefs to surface, flourish or be compromised in the focus and formulation of feedback.

Chapter 6 highlights the theoretical and methodological contributions of the study and summarizes key empirical findings in answer to the research questions:

- RQ1 Feedback practices
    - RQ1a What are the distinguishing features of the feedback practices of different academic teachers in different parts of an institution of higher education?
    - RQ1b How do feedback practices compare?
- RQ2 Feedback-related beliefs
    - RQ2a What are the academic teachers' feedback-related beliefs?
    - RQ2b How do beliefs compare?
- RQ3 Visibility of beliefs in practice
    - RQ3a To what extent are the beliefs visible in feedback practices?

- RQ3b To what extent do different conditions impact enactment of different beliefs?

It then draws conclusions regarding implications for practice and future research given the limitations of the study.

Bringing together different perspectives and balancing the theoretical and practical expectations of this project has not been without its challenges, but it does constitute one of the strengths of this study for the ultimate benefit of both partners in the feedback process and their institutions.

# 2 Literature Review

This literature review seeks to identify the space to be filled by this study into the conditions under which teacher beliefs become visible to students in the focus and/or formulation of feedback information. The review situates the study in the literature regarding the changing role of the teacher in the feedback process as new conceptualisations of feedback emerge that move the teacher from crafter of a message as a gift to a passive recipient towards a designer of feedback opportunities and coach to an active student partner. Although these changing roles are presented in a roughly linear chronological order, my intention is not to suggest that all teachers, or even all researchers, have moved neatly from old to new paradigms of feedback across the years. Rather than a dichotomy or cline, I prefer to see the different paradigms on a Cartesian plane with individuals located in different quadrants, and spaces within a quadrant, depending on the interaction of their beliefs with various conditions mediating their practice. The review highlights a gap in the empirical research relating to the experience of the academic teacher in general (Dunworth and Sanchez, 2018; Henderson *et al.*, 2019; Henderson, Ryan and Phillips, 2019; Sargeant, 2019), as well as a more particular need to explore the underlying beliefs of the academic teacher as potential causal mechanisms in choices made while focusing and formulating their feedback. These beliefs may be one explanatory factor in the oft-cited inconsistency of feedback as experienced by students.

## 2.1 The importance of feedback for learning

The interest in feedback is well documented. A recent review of publications between 1975 to 2017 (Ossenberg, Henderson and Mitchell, 2018) noted 72% more publications on feedback post 2010 compared to the previous decade, and a remarkable 287% increase compared to the 1990s. This was a small study on feedback in workplace-based learning environments but there has been growing consensus across national and educational boundaries on the important role of feedback in assessment for learning since the large review studies by Black & Wiliam (1998) in the UK, Hattie & Timperley (2007) in New Zealand, and Shute (2008) in the United States. Feedback has been described as 'an essential component in the learning cycle, providing for reflection and development' (Weaver, 2006, p. 379) in a UK study across business and design students; 'an essential component in student learning … both within the educational setting and beyond it' (Mulliner and Tucker, 2017, p. 267) in a UK study among students of the Built Environment; or even 'the catalyst that transforms assessment into learning' (Watling and Ginsburg, 2018, p. 2) in a Canadian narrative review with a focus on medical education.

However, Evans' (2013) thematic analysis of the feedback literature from 2000 to 2012 highlights the complexity of the feedback landscape, reminding us that 'Assessment feedback can enhance performance, but not in every context and not for all students' (2013, p. 106). While there is agreement that feedback has potential (Rust, O'Donovan and Price, 2005), there is also 'collective disillusionment' (Rand, 2017) with the progress towards fulfilling this potential (Price, Handley and Millar, 2011; Hyland, 2013a; Smith and Williams, 2017). Feedback remains an 'important but

challenging aspect of higher education pedagogy' (Xu and Carless, 2016, p. 1), which 'remains poorly understood and poorly executed across the sector' (Henderson, Ryan and Phillips, 2019, p. 1237). In order to better understand this 'contentious and confusing issue' (Boud and Molloy, 2013, p. 698), we need to explore the 'slippery spaces that define feedback' (Rand, 2017, p. 45).

While it may still be true to say that the definition of feedback is 'contested terrain' (Carless, 2019b, p. 2) with no widely accepted definition in either the literature or in practice (Scott, 2014), there are some noticeable trends. A desired shift from 'old paradigm' (Carless, 2015b) or 'Mark-1' (Boud and Molloy, 2013) transmission-focused unidirectional feedback to 'new paradigm' or 'Mark 2' learning-focused feedback is reflected in the common definitions used in the literature.

## 2.2 The purpose of feedback

In a 3-year study of staff and student perceptions of feedback across 3 UK universities, Price, Handley, Millar and O'Donovan (2010) make the very logical point that feedback can only be deemed effective in relation to its purpose, and highlight the problem that it is a 'generic term which disguises multiple purposes which are often not explicitly acknowledged' (Price *et al.*, 2010, p. 278). While there seems to be general agreement across contexts (Cookson, 2017, p. 1177) and between students and staff (Dawson *et al.*, 2019) that the 'obvious' purpose of formative feedback is that of improvement, there is less agreement on what exactly needs to improve (Dawson *et al.*, 2019), and how this improvement can best be facilitated (Dunworth and Sanchez, 2016). It is the potential impact of different individual beliefs on these two aspects of the feedback process that drives this study.

### 2.2.1 What needs to improve (the focus of feedback)

The seminal work by Hattie & Timperley (2007) defined feedback as "information provided by an agent (e.g., teacher, peer, book, parent, self, experience) regarding aspects of one's performance or understanding' (Hattie and Timperley, 2007, p. 81). They proposed four distinct levels of feedback that might be more or less effective depending on which aspect is in need of improvement: feedback on the task (FT) might be appropriate to improve domain knowledge; feedback on the strategies used in processing the task (FP) is more useful if the purpose is to improve transfer to other similar tasks; feedback at the level of self-regulation (FR) is more powerful in improving wider learning beyond the classroom; whereas feedback on the self (FS), especially when it is divorced from specifics of the learning situation, is the least powerful. They recommend moving from a focus on task to a focus on processing and ultimately towards self-regulation, which is a trend that is reflected in the literature as will be shown below. However, this does not mean that a teacher's purpose should always be the same (Shute, 2008). In a well-designed curriculum, different tasks may have different purposes and therefore require a different level, or combination of levels, of feedback. If the teacher's purpose is to improve thinking skills, then corrective feedback on the accuracy of the response may not be the most appropriate. There may be occasions, however, where the teacher's

purpose is to check surface learning of a body of knowledge in the subject domain, when simple feedback on the task content would be appropriate despite the fact that this would not be transferable. Hattie and Timperley (2007) note that feedback on the task in these circumstances may, in fact, improve self-efficacy (Bandura, 2015) – which is important in self-regulation. They also point out, interestingly, that FT is more powerful when it is about misinterpretation rather than lack of information, and also that FT is less effective if mixed with FS.

Hattie and Timperley (2007) see FR as powerful because it 'can lead to seeking, accepting, and accommodating feedback information' (p. 94). Self-regulated learning is also the target for improvement in Nicol & MacFarlane-Dick's (2006) seven principles for feedback. However, Orsmond and colleagues in the presentation of their GOALS framework are clear that there may be distinct goals for improvement, stating that ''Good' feedback helps students understand their subject area and gives them clear guidance on how to improve their learning' (Orsmond *et al.*, 2013, p. 240) – a distinction between the orientational and transformational dimensions of feedback (Dunworth and Sanchez, 2016). Price et al. (2010) highlight the importance of what they term 'longitudinal development' in their exploration of five purposes of feedback in a nested hierarchy. They note that while cognitive correction and behaviourist reinforcement may not be appropriate for the more complex work at university level, many teachers still use forensic diagnosis to identify problems and benchmarking to show the gap, rather than a level of feedback appropriate to their espoused focus of longitudinal development. Carless (2006) reminds us that as well as improvement, feedback may have other functions such as justifying grades or demonstrating expertise (see also Dunworth and Sanchez, 2018), and that 'students, and even tutors themselves, may not be fully aware of which of these functions or which combination of them is being enacted' (p. 220). This is supported in Li & De Luca's (2014) review that notes a divergence between the intended target of learning improvement and the actual practice of justifying the grade in the very limited number of studies that compare teacher beliefs with practices (See Section 2.6).

Thus, it can be seen that determining a clear focus for feedback based on the desired improvement is an important first step in establishing the best way forward in the feedback exchange. However, this is not a simple decision since there are experiential, social and environmental mediators at play (Dunworth and Sanchez, 2018).

### 2.2.2 How to facilitate improvement (the formulation of feedback)

Once a decision on the focus of feedback has been made, the decision on how to formulate that feedback will depend to a large extent on whether feedback, and teaching and learning in general, is conceptualised as cognitive telling, constructivist individual meaning-making or socioconstructivist shared meaning-making (Higgins, Hartley and Skelton, 2002; Ivanič, 2004; Orrell, 2006; Price *et al.*, 2010; Price, Handley and Millar, 2011; Brown, Harris and Harnett, 2012; Evans, 2013; Gamlem, 2015). There has long been a call for a shift in learner and teacher roles in the literature, but this is a slow process (Boud and Falchikov, 2006; Taras, 2007) and may

depend on teacher priorities (Tuck, 2012a). The pendulum of blame for lack of improvement has swung between teacher and student and landed firmly in the middle, assigning new and complex responsibilities to both parties in a feedback partnership (Parr and Timperley, 2010; Bing-You, *et al*., 2018; Carless, 2019; Winstone and Carless, 2020) as will be seen below.

## 2.3 Conceptualisations of teacher roles in the feedback process

### 2.3.1 Teacher as feedback giver to a passive student

In the most extreme cases of 'old paradigm' feedback (Carless, 2015a), also described as 'Mark 1' (Boud and Molloy, 2013), the focus is firmly on the responsibility of the teacher to deliver a gift of well-crafted feedback comments to a passive learner. For example, in Shute's (2008) review, formative feedback was defined as 'information communicated to the learner that is intended to modify his or her thinking or behavior to improve learning' (Shute, 2008, p. 153); and in Li & de Luca's (2014) review, summative feedback was defined narrowly as 'comments and grades that lecturers and tutors provide' in order to justify grades and maintain standards (Li and De Luca, 2014, p. 378). Studies located in this space of the feedback plane identify characteristics that would improve the focus or formulation of feedback comments and thereby aid rather than inhibit learning, such as a greater focus on issues of organization and less on technicalities (Stern and Solomon, 2006); or less terseness in the little texts (Mutch, 2003). There were already warnings that even the best-crafted feedback risked being ignored if there was no dialogue with the student, and indeed some studies have shown that improvements in the quality of the message has had little or no impact on satisfaction rates or learning gains (Jonsson, 2013; Nicol, Thomson and Breslin, 2014).

### 2.3.2 Teacher as feedback giver to an active student

Some studies, such as the present one, continue to explore the nature of teacher feedback comments because they are ever-present in HE assessment systems and perceived as important to students (Dunworth and Sanchez, 2016; Dawson *et al.*, 2019). However, there is now general agreement that teacher comment without student response is just 'dangling data' (Sadler, 1989, p. 121) in line with the much cited definition of feedback as 'information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way' (Ramaprasad, 1983, p. 4). As with feedback in engineering or homeostasis in biology, there needs to be a response (Boud and Molloy, 2013). The Canadian educational psychologists Butler and Winne (drawing on Alexander et al., 1991) were among the early voices calling for feedback to be 'information with which a learner can confirm, add to, overwrite, tune, or restructure information in memory, whether that information is domain knowledge, metacognitive knowledge, beliefs about self and tasks, or cognitive tactics and strategies'. (Butler and Winne, 1995, p. 275).

Thus, feedback came to be seen by some as a process that is 'not complete until an initial input is responded to, appropriated and transformed' (Dunworth and Sanchez, 2018, p. 107). The process still starts with a comment, but this is no longer seen as a cognitivist message but instead as a resource for constructivist meaning-making (Esterhazy and Damşa, 2019).

However, students cannot respond if the comments are too specific to the task (Carless, 2006), so both teacher and student are advised to consider feed up, feed back and feed forward as in Hattie and Timperley's 3-question model: 'Where am I going? How am I going? and Where to next?' (Hattie and Timperley, 2007, p. 102). This allows comparison of current understanding with the goal and then identifies further challenge. This difference between feedback and feedforward has been termed evaluative and educative feedback (Lizzio and Wilson, 2008), discrepancy and progress feedback (Voerman *et al.*, 2014), and past-oriented and future-oriented feedback (Nash *et al.*, 2018). The term 'feedforward' seems to have gained particular traction amongst practitioners and in institutional policy (Bailey and Garner, 2010), though it is another term that is understood differently by students and teachers as either within module, beyond module, or beyond programme (Reimann, Sadler and Sambell, 2019). Even within the literature, there is sometimes a short-term definition of feedforward as 'effective learning from feedback to inform future assignments' (Orsmond *et al.*, 2013, p. 242). However, if we re-examine definitions of feedback, we see that 'feed forward is not a separate notion but a necessary characteristic of feedback' (Boud and Molloy, 2013, p. 702) that aims to improve the quality of future work .

Including an element of feedforward to guide a student response has not served as a magic bullet, though, and while students continue to complain about not getting clear, timely, actionable, specific feedback (Carless, 2006; Nicol, 2010; Jonsson, 2013; Orsmond *et al.*, 2013), lecturers bemoan students' apparent lack of response (Mutch, 2003; Carless, 2006; Orrell, 2006; Weaver, 2006; Crisp, 2007; Orsmond and Merry, 2011; Scott, 2014) and accuse students of being 'mainly instrumentally motivated and primarily concerned with marks' (Bailey and Garner, 2010, p. 194). While some suggest a joint responsibility to overcome the barriers to students' use of feedback (Sadler, 1989; Winstone *et al.*, 2017), others suggest that perhaps it is the system rather than the student that is to blame for a lack of engagement as 'conformity and uniformity are emphasised at the institutional level too readily at the expense of clarity at the pedagogical' (Bailey and Garner, 2010, p. 195), leading to efficient rather than effective feedback (Price *et al.*, 2010) which becomes ritual (Carless, 2006) and routinised practice (Orrell, 2006). It can be argued that it is through a shift toward seeing feedback more as a part of pedagogy than assessment that these routines might be broken.

### 2.3.3 Teacher as developer of feedback opportunities for a feedback literate student

Feedback has now been repositioned in much of the literature as a 'fundamental part of curriculum design, not an episodic mechanism delivered by teachers to learners' (Boud and Molloy, 2013, p. 699). This call for a fundamental reconceptualisation of feedback resulted in a definition of Hounsell's (2007) notion of sustainable feedback as 'dialogic processes and activities which can support and inform the student on the current task, whilst also developing the ability to self-regulate performance on future tasks' (Carless *et al.*, 2011, p. 397).

For learners, it is no longer simply about responding to comments, but also seeking feedback from various sources, and giving feedback themselves through the development of 'feedback literacy'. This is defined as 'the understandings, capacities and dispositions needed to make sense of information and use it to enhance work or learning strategies' (Carless and Boud, 2018, p. 1315) and is underpinned by four inter-related key features: 'appreciating feedback; making judgments; managing affect; and taking action' (Carless and Boud, 2018, p. 1315). In addition to this active participation in the feedback process, the student also needs to develop a mindset of 'proactive recipience' (Winstone *et al.*, 2017, p. 2039), defined as taking direct responsibility for action and appreciating the importance of action, which is seen as part of self-regulation.

Given a responsible feedback literate student, therefore, the most successful practice might remove the need for the teacher as feedback giver due to enhanced student self-regulation, nested tasks, use of exemplars, and increased peer feedback. However, there are new roles for the teacher as co-ordinator (Nicol, 2010), designer and sustainer of the learning milieu and facilitator of shifts in identities (Boud and Molloy, 2013), learning facilitator (Li and De Luca, 2014), curriculum designer, guide and coach (Carless and Boud, 2018) or designer of feedback opportunities (Henderson *et al.*, 2019). As Evans (2013) points out, the demands on the lecturer are huge as they help the student navigate the feedback landscape. This inevitably led to a call for research into the enabling construct of teacher feedback literacy (Xu and Carless, 2016), which is seen as a part of the wider construct of pedagogic (Parr and Timperley, 2010) and assessment literacy (Davies and Taras, 2016; Xu and Brown, 2016; Taras and Davies, 2017), and defined as 'the teacher's awareness and skills of developing students' cognitive and social-affective capacities necessary for effective feedback processes' (Xu and Carless, 2016, p. 2). It is now recognized that 'teacher feedback literacy is central to the possibilities for new paradigm feedback practices: without teacher feedback literacy, it is unlikely that student feedback literacy will develop' (Winstone and Carless, 2020, p. 174). As Orrell (2006) argued, assessment and feedback are pivotal in a constructively aligned curriculum rather than postscripts to teaching and learning. Thus, it has become established in many quarters that both teacher and learner need to be committed to the feedback partnership (Barker and Pinard, 2014; Dunworth and Sanchez, 2016; Carless, 2019b). However, the way in which feedback is 'realized and experienced depends both on features of the planned course design and how this is enacted by teachers and students' (Esterhazy, Nerland and Damşa, 2019, p. 4). There is a call for further research into 'the role(s) teachers play in the (interactional) process of meaning making of feedback comments' (Esterhazy and Damşa, 2019, p. 273), which is the subject of the next section.

### 2.3.4 Teacher as a communicator

One familiar definition of feedback is 'all dialogue to support learning in both formal and informal situations' (Carless *et al.*, 2011, p. 39). Boud and Molloy (2013) are at pains to point out that dialogue, which is a key feature of Mark 2 feedback:

> should not be taken literally as face-to-face or one-to-one conversations, but as all forms of interactions of different kinds with different actors (teachers, peers, practitioners, consumers and learning systems) with a view to eliciting perceptions and judgements, and discerning what is needed for improved action. (Boud and Molloy, 2013, p. 709)

Others have chosen the term 'feedback exchanges' (Evans, 2013; Winstone and Carless, 2020) to highlight this ongoing interpretation. With a focus on feedback literacy, the purpose of dialogue is wider than one specific piece of work and encompasses discussions of assessment and feedback processes in general, as well as clarifying the rules of the game (Carless, 2006). Recently the term 'meta-dialogue' has been used (Carless and Boud, 2018) to describe this 'dialogue about purpose among the key players' (Price *et al.*, 2010, p. 284) or 'mutual exploration of slippery spaces' (Rand, 2017, p. 46). A 10-point gap in UK National Student Survey scores between one item 'I have received detailed comments on my work' and another item 'Feedback on my work has helped my clarify things I did not understand' is seen as evidence of a 'communication divide' (Williams and Smith, 2017, p. 161) that needs bridging through dialogue.

Whatever the exact purpose and nature of the dialogue, it has long been established that feedback is a 'problematic' form of communication (Higgins, Hartley and Skelton, 2001, p. 273) because it is a situated social practice (Rae and Cochrane, 2008; Price, Handley and Millar, 2011) which brings with it issues of discourse, power and emotion (Lea and Street, 1998; Carless, 2006). We are reminded that the difficulties in establishing a dialogue between staff and students 'should not be underestimated' (Price, Handley and Millar, 2011, p. 881) due to the individual and contextual factors involved and the need for trust and perception of joint enterprise. Lea and Street's academic literacies work highlights the considerable 'miscommunication between tutors and students' (Lea and Street, 1998, p. 167). Evans (2013) highlights the importance of communication skills in feedback exchanges, and Sargeant (2019, p. S10) poses the question of how we can support faculty in developing the 'specialized communication skill set required to conduct feedback and coaching conversations that promote the development of learners' sense of competence, autonomy, and relatedness'. Blair and McGinty (2013) explore feedback dialogue from a student perspective and conclude that the onus is on the student to make the most of opportunities in tutorials but that many do not have the confidence to do so, due to issues of age or identity. They suggest using the term 'feedback negotiation' rather than 'engagement' to overcome the power differential, and stress the need for collaborative dialogues. Ossenberg (2018, p. 397) also considers the need to make the student more of an equal in the 'dialogic partnership'. Both Nicol (2010) and Sadler (2010) attribute much of the dissatisfaction with feedback to 'impoverished and fractured dialogue' (Nicol, 2010, p. 503) and breakdowns in communications – in this case with peers (Sadler, 2010).

This interpersonal dimension has been highlighted in models by Yang and Carless (2013) and Dunworth and Sanchez (2016). Ajjawi & Boud (2018) offer empirical evidence of the Yang and Carless model through an interactional

analysis approach (see also Steen-Utheim and Wittek, 2017). Other studies that focus on the language used to communicate feedback include Critical Discourse Analysis (Hyatt, 2005), move analysis (Mirador, 2000), and genre analysis (Yelland, 2011). Tuck (2012) critiques this emphasis on feedback as a product rather than as a complex social practice. Part of the present study does explore the actual visible texts that form the student experience of feedback (both oral and written), using tools from conversational analysis and the more quantitative interaction analysis to explore turn-taking, topic shifts and function of utterances. What is of greater interest, however, is the invisible layers of beliefs that underlie these products and their relationship with the feedback process as a whole, both focus and formulation.

## 2.4 Teacher beliefs – conceptual and methodological challenges

If assessment and feedback are to be seen as part of pedagogy, it is worth briefly examining the literature on teacher beliefs in teaching and learning in general, not just in relation to feedback. Since the 1970s it has been argued that it is necessary to understand teachers' mental lives in order to understand their observable behaviour. Teacher cognition has been defined as 'an often tacit, personally-held, practical system of mental constructs held by teachers and which are dynamic – that is defined and refined on the basis of educational and professional experiences throughout teachers' lives' (Borg, 2006, p. 40). This umbrella term encompasses a plethora of other terms that have complicated teacher cognition research (See Borg 2006 for a review). The present study focuses on a subset of teacher cognition, namely teacher beliefs, which again defies an agreed definition (Skott, 2015). Of interest to this study is Ashton's (2015) definition of beliefs as 'a messy construct that overlaps with knowledge and is confounded with emotion' (p. 43). While acknowledging that beliefs comprise both cognitive and affective elements, Skott (2015) differentiates them from knowledge as being more subjectively true, and from emotion as being more stable and less intense. It is arguably this characteristic of subjectivity that renders beliefs somewhat resistant to change since they can be held with some conviction in the face of rational evidence to the contrary (Kagan, 1992) and while accepting that other positions are rational and intelligent (Skott, 2015). Pajares (1992) highlighted certain fundamental assumptions in the study of teacher beliefs that have also appeared in research on feedback: they are resistant to change (Shi and Cumming, 1995; Evans, 2013); a filter through which new phenomenon are interpreted (Van den Bergh, Ros and Beijaard, 2014); instrumental in defining tasks and decision making (Hyland and Anan, 2006; Basturkmen, 2012a); and they strongly affect teacher behaviour (Brown, Harris and Harnett, 2012). More specifically in feedback literature, teacher beliefs have been noted to be a key factor in student engagement (Price, Handley and Millar, 2011) and a constraint or limit to development (Gamlem, 2015; Henderson *et al.*, 2018).

### 2.4.1 Examining layers of beliefs, thoughts and behaviours in context

In addition to the characteristics of beliefs, the way that they are held is also of importance to the present study. This is often cited as an explanatory factor for the lack of correspondence between beliefs and practice that has been noted in the empirical research (Basturkmen, 2012a; Buehl and Beck, 2015) in a field whose raison d'etre has long been that 'beliefs are a powerful

influence on teachers' thinking and behaviours' (Ashton, 2015, p. 42). It has been hypothesized, for example, that there may be a tension between the strength of a belief (core vs peripheral), the level of its specificity, and its influence on practice (Phipps and Borg, 2009). It has also been argued that beliefs 'often operate unconsciously' (Borg, 2006, p. 10), with tacit beliefs only being seen in action (enacted), while other beliefs are explicit and can readily be put into words (espoused) (Buehl and Beck, 2015). Finally, it has been suggested that beliefs are held in multiple systems or clusters and that beliefs held in different clusters may conflict with each other (Buehl and Beck, 2015). It has been noted in the teacher feedback literature, for example, that practice is influenced by beliefs not just about assessment and feedback, but about teaching and learning in general (Brown, Harris and Harnett, 2012; Palfreyman, 2013); the individual role in the process (Price *et al.*, 2010; Price, Handley and Millar, 2011); the student and teacher relationship (Higgins, Hartley and Skelton, 2002; Hyland and Hyland, 2006; Orrell, 2006; Basturkmen, East and Bitchener, 2014); or even views of language and writing (Ivanič, Clark and Rimmershaw, 2000). Thus, as Skott (2015) points out, certain beliefs articulated in an interview may be overtaken in practice by other beliefs that are more centrally or less consciously held. The present study aims both to surface the tensions between a range of beliefs with differing levels of specificity, including the role of higher education, the teacher-student relationship, and the purpose of assessment and feedback, and to identify which beliefs come to the surface in a range of different feedback contexts.

Context is a further factor that is often used to explain differences between beliefs and practice. Beliefs are now seen as dynamic, situated and emergent in line with a move to a more socio-constructivist view of education in general (Skott, 2015) and with the new paradigm of feedback outlined above. The feedback research often explains any divergence between beliefs and practice in terms of external constraints such as institutional or national policy, and workload. Lee (2008, 2009, 2011, 2013), for example, calls for an ecological perspective that takes account of contextual constraints, and claims that external contextual forces appeared to play a greater role on how the teachers responded to their students' writing than some of their own beliefs. Guenette and Lyster (2013) also cite lack of time and Diab (2005) the pressure of student expectations. Other studies emphasize the importance of institutional culture and values (Junqueira and Payant, 2015; Lefroy *et al.*, 2015). Dunworth and Sanchez (2018) identify tensions between different mediating factors, which they classify as experiential, social, or environmental, and highlight the pressures of 'having to conform to systemic constraints while trying to address multiple audiences with differing messages through a single text' (Dunworth and Sanchez, 2018, p. 113). The present study will consider not only the different conditions (both internal and external) which allow different espoused beliefs to become visible to students in teacher feedback practice, but also those beliefs that are visible to the researcher in the teachers' thinking-in-practice but do not surface in their feedback behaviour and thus do not become part of the student feedback experience. This is made possible using the think aloud technique (See Section 3.4.3).

Methodological issues have also been highlighted as a possible explanation for lack of consistency in findings of the relationship between beliefs and practice. Pajares' seminal work on the meaning of beliefs reminds us that 'beliefs cannot be directly observed or measured but must be inferred from what people say, intend and do' (Pajares, 1992, p. 314). It is this need for inference from interviews or classroom observations that has presented a methodological challenge in teacher beliefs research 'as the trustworthiness of any study clearly depends on the degree to which the data generation process allows access to the key construct under investigation' (Skott, 2015, p. 21). Researchers have moved from surveys towards case studies which use multiple methods, including stimulated recall, to elicit thinking *on* practice (Skott, 2015). The present study is one of very few in the feedback literature that uses a think aloud protocol to access thinking *in* practice, which enables a comparison not only between what is said and done but also between what is thought and what is done. The study draws on Bhaskar's concept of depth ontology, which views reality as a stratified laminate of the *real*, the *actual* and the *empirical* (see Section 3.1 for a more detailed explanation). While most feedback studies focus on the *empirical* layer of student experience, the present study examines the underlying layer of *real* beliefs and the extent to which they become visible in the *actual* feedback event. These underlying beliefs may be 'possessed unexercised, exercised unactualized, and actualized undetected or unperceived' (Bhaskar, 2013b, Transcendental Realism, para. 5).

### 2.4.2 Building on existing research findings into teacher beliefs in practice

Two notable reviews examine the nature and importance of the relationship between teacher beliefs and practice and make recommendations that have influenced the present study. Basturkmen (2012a) considered 13 theses, 3 articles and a book chapter in the English Language Teaching beliefs literature between 2000 and 2012 and found 11 studies reported limited correspondence between beliefs and practice. Where there was some degree of correspondence, this was among more experienced teachers or on planned aspects of teaching. She recommended research into less planned aspects of teaching, of which the feedback dialogue is arguably one. Buehl & Beck (2015) examined 257 articles in the K-12 beliefs literature and identified differing perspectives on how beliefs and practice relate to each other, concluding that the relationship is 'reciprocal, but complex' (Buehl and Beck, 2015, p. 70). Like Basturkmen (2012), they highlight experience as a key variable, hypothesising that beliefs that are in flux may not align with practice, and so recommend that in the design of research studies 'careful consideration must be given to who the teachers are' (Buehl and Beck, 2015, p. 79). The other variables identified were the type and position of the belief as outlined above, as well as the function of the belief as either a filter for information, a frame for a problem or a guide for action. They go on to recommend that 'Instead of seeking evidence that beliefs are or not related, alternative lines of enquiry should seek to understand the variations in the relations between beliefs and practices as well as the consequences of belief congruence and incongruence' (Buehl and Beck, 2015, p. 71). The present study seeks to take this more nuanced approach.

In the feedback literature, there have been calls for exploration of the under-researched area of teacher feedback beliefs from many contexts: Norwegian secondary classrooms (Gamlem, 2015); English language teaching in Hong Kong (Lee, 2010) and Japan (Hyland and Anan, 2006); US writing instructors (Ferris, 2014); Australian Higher education (Orrell, 2006) and UK Higher Education (Bailey and Garner, 2010). In Evans' (2013) review of 460 articles from 2000 to 2012, only 7.1% of
work on feedback addressed the lecturer perspective and she highlighted a need to 'unpack lecturers' conceptions of learning and feedback, exploring what they see as the purposes of feedback' (Evans, 2013, p. 105). In their 2014 review, Li and de Luca also noted few studies exploring teachers' beliefs about assessment feedback and only two (Orrell 2006 in Australia and Li & Barnard 2010 in New Zealand) comparing teachers' beliefs with their live feedback practices. These two studies will be considered below alongside the only other studies on feedback-related beliefs of academic teachers that I have been able to locate in the literature to date.

One reason for the research call is in order to attempt to explain the discrepancies in student experience of feedback reported in the literature across contexts. For instance, Mulliner & Tucker (2017) found that 81% staff and 87% students felt that feedback was of varying quality depending on the lecturer providing it. This was supported in an Australian study into assessment theories and practice (Orrell, 2006) that lamented 'variable quality in students' learning experiences, with perhaps only one or two positive learning experiences during their student career' (p. 454). The study of 16 experienced academics in teaching education and nursing education programmes observed 'thinking-in-assessment' using think aloud techniques and compared the findings with 'thinking-about-assessment' elicited through reflections in response to statements about assessment and a ranking task to see how personal theories influenced their choices. She found only 22% agreement between espoused beliefs and practice, with some academics not doing what they had espoused and others doing what they had not espoused. Most comments were categorised as teaching content in response to a gap or error, or editing presentation through correction of spelling, grammar, or conventions. Dialogues about ideas were the least frequent with only one response showing evidence of a co-learning approach. While there was considerable variation in amount and focus of feedback, from a simple grade to detailed feedback on ideas, all were one-off tasks, 'an end-product to 'shake out a grade' and satisfy institutional requirements, not a formative tool for improving students' understanding of their own developmental needs' (Orrell, 2006, p. 449), which contrasted with stated beliefs. Interestingly, it was noted that often the defensive and summative overall justifications for grades did not match the thinking observed. Institutional policy was not mentioned by participants, and the paper ends with a call for collaborative action at faculty and departmental level to establish shared procedures.

The Australian study above in 2006 contrasts sharply with a British ethnographic study of the perceptions of 42 lecturers across a range of disciplines at one university some years later (Bailey and Garner, 2010), which concluded that institutional pressure to conform to quality assurance

measures at department level had made the situation worse rather than better and still found a 'fragmented learning experience' (Bailey and Garner, 2010, p. 196) because teachers balanced the conflicting demands of institutional requirements, pedagogical intentions and conceptions of feedback in different ways. Similarly, Beaumont et al.'s (2011) qualitative study of 23 staff and 145 students in six schools/colleges and three disciplines across three English universities found perceptions of a feedback experience in higher education that showed no alignment, with feedback practices largely dependent on individual tutors' beliefs despite the well-established assessment for learning processes in schools and an understanding of the concept of assessment as a process among students. Davies and Taras' (2016) questionnaire-based studies involving 50 science and 50 education lecturers at one UK university found a variety of understandings of assessment terms within and between disciplines, with few references to feedback as part of formative assessment. They concluded that 'more work is required in understanding the assessment beliefs of staff, across the higher education discipline landscape, because lack of consistency in personal beliefs and understandings about assessment link directly to practice' (Davies and Taras, 2016, p. 95). None of these UK studies explored academic teachers' feedback beliefs in action, which is a main focus of the present study.

An American mixed methods study (Ferris, 2014) surveyed 129 college writing instructors at 8 post-secondary sites in California and interviewed 23 of them about their philosophies in practice, including talk around their own feedback practice as evidenced on 3-5 student texts. It found a variety of philosophies (often misaligned with the somewhat limited evidence of practice), ranging from the noble teacher who wanted to empower students, through the compassionate whose aim was to build confidence, towards the pragmatic who aimed to best manage time and the cynical who looked for the easiest option and gave models to follow. They concluded that the discrepancy in response was not a desire to ignore current expert advice but a desire to show flexibility based on the needs of the learner and task.

In contrast, in a multi-method study of untrained inexperienced part-time academic writing tutors in a Faculty of Arts at a New Zealand university (Li and Barnard, 2011), a general level of convergence was found between what participants said and did. From an original 28 participants who completed a survey, 16 from eight departments were interviewed, and nine completed a think aloud on one or two scripts while giving feedback, and then participated in a stimulated recall session with the researcher, followed by focus groups a few weeks later. There was very little on-script and sometimes no post-script summary. There were lots of ticks and more focus on form than substance. The major concern, which dominated private talk in the think aloud, as well as the stimulated recall sessions and focus groups, was about justifying grades. While many of these findings may be related to the lack of experience and training, there is one clear point of agreement in that 'this innovative capturing of 'cognition in flight' (Vygotsky, 1978) through think aloud procedures while formulating feedback was perhaps the most revealing element of the study' (Li and Barnard, 2011, p. 145). It is

hoped that this same procedure will be equally revealing in the present study.

## 2.5 Concluding remarks

The present study into the relationship between the belief systems of three academic teachers and their feedback practices takes into account the conceptual and methodological challenges outlined in this chapter. It is acknowledged that variations in feedback practice may be due not only to tensions between different types, structure and functions of beliefs both within and between teachers, but also to mediating factors, both internal and external, that arise in a socially situated feedback context where so much relies on the vagaries of communication. The present study explores both espoused and enacted beliefs, and the relationship between them, as the lecturer gives live feedback on written work to students at different levels, using different modes, on different task types and at different times in the course, both summative and formative (see Chapter 4). This will enable an examination of any intrapersonal variation between beliefs and practice under different conditions. Each case is then compared to draw out relevant themes for discussion and analysis of interpersonal variations in practice and their nuanced relationships with underlying beliefs (see Chapter 5).

It has been shown that there is a clear gap in the feedback literature for a consideration of teacher perspectives on feedback in general, and in particular for an analysis of the relationship between beliefs and practice as a possible causal factor in the inconsistent feedback experience of students. Methodologically, the inclusion of a concurrent verbal protocol, or think aloud, as one tool for the generation of data addresses to a certain extent the limitations of the few other studies in this area that analyse only traces of thought in the form of written comments (Ivanič, Clark and Rimmershaw, 2000; Mutch, 2003) or engage with teachers at the level of perceptions only, not practice (Bailey and Garner, 2010; Beaumont, O'Doherty and Shannon, 2011; Davies and Taras, 2016). As Mutch points out:

> Language analysts would point to the vital importance of the absent in textual analysis. That is, if all text creation is a matter of selection and choice, what is left unsaid may be as significant as that which is said. Of course, to fully analyse this we have to have some access to what might be said. […] What we do not have, of course, is access to the reasoning behind what has been said. (2003, p. 32)

The 'private talk' (Li and Barnard, 2011) in the think aloud gives some access to the invisible world of reasoning that does not always become visible to the student in their *empirical* feedback experience. The two studies outlined above that compare beliefs with *actual* practice, one in Australia and one in New Zealand, both use think aloud technique to access this invisible world of feedback (NB Bloxham, Boyd & Orr 2011 also use think aloud to explore the use of marking criteria in grading decisions) but on far narrower samples than the present study. There are other significant differences in methodology and method between these studies and the current research, which will be explored in greater detail in the next chapter.

Norton *et al*. (2019) make the case for the professionalisation of assessment design, marking and feedback. In their survey of 365 lecturers across two UK universities they found that 77% believed that initial training in feedback should be mandatory and 79% felt that it should be a focus of continuous professional development. It is hoped that the present study goes some way to respond to their exhortation that

> Unless assessment design, marking and feedback practices are understood at the micro level of the individual, any attempted change in practice and culture at the meso (departmental/discipline) level or macro (institutional) level is likely at best to be reluctantly complied with, and at worst actively resisted. (Norton, Floyd and Norton, 2019, p. 1210)

The next chapter outlines the context of institutional reform that prompted the design of the present study.

# 3 Research Design

Attempts have been made to ensure trustworthiness of the collection, generation and interpretation of data in this research enquiry as suggested in the literature (Creswell, 2014) through a transparency in the research design decisions at every stage and explicit links between the worldview, research strategy and methods that hopefully give some coherence and consistency to that design.

Since 'Research is not helped by making it appear value free' (Stake, 1995, p. 95), I begin by making explicit the values that I believe guide my actions. This 'philosophical worldview', which Creswell (2014, p. 6) defines as 'a general orientation about the world and the nature of research', has undoubtedly been shaped by my professional experience as a teacher and researcher of English for Academic Purposes. In turn, this worldview has shaped my choice of research topic, strategy and methods. However, my study is not loyal to any one philosophy. I draw on the explanatory power of concepts from both critical and social realism, which I believe are complementary and not contradictory to elements of social constructivism visible in my methods. The eclectic problem-solving worldview outlined in Section 3.1 draws on critical and social realist concepts of depth ontology and absenting (Archer *et al.*, 2013) as a potentially powerful explanatory framework for the oft-cited inconsistencies in academic teacher feedback to students. The strategy of inquiry explained in Section 3.2 explores the versatility, but also the fallibility and geo-historical relativity of case studies. Section 3.3 then goes on to outline the context in which the research questions emerged, and Section 3.4 explains the selection of cases and research methods used to generate and collect data. Section 3.5 outlines the processes of thematic analysis to reveal empirical demi-regularities, abduction to merge data and theory, and retroduction to arrive at the best explanation for my data. The chapter concludes with considerations of trustworthiness and ethical issues arising from my research.

## 3.1 The worldview

The dislike of dichotomies and orthodoxy that result in the eclectic combination of teaching and learning methods visible in my classroom, which I believe benefits my students, has also resulted in a merging of different philosophical elements in my worldview, which I believe benefits my research (Tashakkori and Teddlie, 2010). As a practitioner researcher, I am more concerned with solving problems in my practice than remaining loyal to one particular philosophical approach. My thinking has been influenced recently by Maton's (2014) realist sociology of education and by his advice that 'in research you only need as much theory as the problem-situation demands, no more and no less' (Maton, 2014, p. 19). It is through his work that I came across the concept of 'depth ontology' pioneered by Bhaskar (Archer *et al.*, 2013) and it is this element of critical realist theory which I see as a potentially powerful explanatory framework for the variability in academic teachers' feedback on students' written work that has caused problems for my practice as an EAP course designer and is often noted in the literature (Mulliner and Tucker, 2017). I relate to the ontological realism and epistemological relativism of realist philosophies, which sit comfortably alongside my much longer held social constructivist worldview.

My study explores 'the interacting causal powers connecting the underlying structures of the social world to the events and experiences we wish to explain' (Simmonds and Gazley, 2018, p. 155). *Causal powers* are the defining characteristic of what is *real* for critical and social realists (Bhaskar, 2013a). These causes are not the absolute laws of positivists but rather relational tendencies that can be *transfactually* applied *ceteris paribus* across open systems such as society (Bhaskar, 2013b). Realism acknowledges the reality not only of physical objects, but also mental phenomena such as beliefs and recognizes the value of an interpretive perspective (Maxwell and Mittapalli, 2015). In this study, academic teachers' beliefs are conceptualised not simply as cognitive constructs as in beliefs research of the 1980s or more recently as socially-constructed (Skott, 2015), but as *real* entities with their own *causal powers* and *generative mechanisms* that underlie and therefore constrain feedback as experienced by students. An understanding of Bhaskar's concept of *depth ontology* (Archer, 2013a) is key to this worldview. Reality is viewed as a stratified laminate with three layers: the *real* (underlying entities, structures and mechanisms), the *actual* (event), and the *empirical* (experience). The domain of the *real* is seen as 'distinct from and greater than the domain of the actual (and hence the empirical too)' (Bhaskar, 2013b, Transcendental Realism, Para.7). The *generative mechanisms* and *causal powers* of these underlying entities may be 'possessed unexercised, exercised unactualized, and actualized undetected or unperceived' (Bhaskar, 2013b, Transcendental Realism, Para.5) since the relationship between causal powers and their effects is not fixed, but contingent (Maxwell and Mittapalli, 2015). An individual's context and beliefs are both separate *real* phenomena that can causally interact with each other. While most current studies of feedback explore the *empirical* layer of student experience of *actual* feedback practices, my focus is on the underlying *real* layer of academic teachers' beliefs, since, as Archer (2013a, para.16) points out, 'what is the case places limitations upon how we can construe it'. I therefore aim to explain what happens in the transition from the *real* to the *actual* where some *causal powers* generate an effect on the *actual* feedback process, while others do not. As Bhasker notes, 'that what is, is only one possible world and that, moreover, always presupposes the possibility of other worlds' (2010, p. 23; cited by Simmonds and Gazley, 2018, p. 155).

I contend that it is the choices that academic teachers make, whether consciously or unconsciously, between potential feedback focuses and formulations that constrain what becomes available to students as 'dangling data' (Sadler 1989) (*actual*) and can therefore be experienced as part of the feedback process (*empirical*). On this point, I also draw on Bhaskar's concept of *absenting* since I agree that 'agency is (intentional) causality, which is absenting' (Bhaskar, 2013b, Dialectic, para.10). Thus, explaining what is absent in *actual* feedback is important to my research since 'all negation is in space-time' (Bhaskar, 2013b, Dialectic, para.11) and changes in these conditions may thus influence choices made (see Section 5.3).

Thus, it is drawing on these two key elements of Bhaskar's critical realist philosophy (depth ontology and absenting) that I hope to generate a vertical

explanation of the nexus between belief, context and feedback 'in terms of the generative relationships indispensable for their realisation (and equally necessary to account for the systematic non-actualisation of non-events and non-experiences)' (Archer, 2013a, para.19).

Just as I am keen to surface the multiple and complex *generative mechanisms* underlying the feedback practice of academic teachers in my research, I also acknowledge the *causal power* of my own personal experience and beliefs outlined above. I have chosen to use the first person in this methodological account of my decision making in order to make my role in the research process highly visible. I also choose to use the term 'actors' rather than the more common term 'participants' to remind me and my reader that these people will be aware of me as their audience, and my purpose as a researcher, and that they have agentive powers. The other actors, or agents, in the feedback process are of course the student writers. While they do feature in this research as partners in the feedback processes that are observed, their *empirical* experience of the feedback process is not the main focus of this study – a key difference to most of the recent literature on feedback.

This section has provided some insight on the elements of theory, professional experience, and personal beliefs that have guided my selection of research topic, strategy, questions, and methods that will be explained in the following sections.

## 3.2 The strategy of inquiry

I was drawn to case study research as a strategy due to 'a practical versatility in its agnostic approach' (Harrison *et al.*, 2017, Section 3.2) and my own identity as a methodological pluralist.

Case study seems to resist categorisation as a purely qualitative or quantitative approach – or even as an approach or a method (Harrison *et al.*, 2017). Although handbooks for case study research have now been written (Stake, 1995; Yin, 2014), this has been done from distinctly different perspectives and, while I agree with Harrison *et al.* (2017) that this diversity of disciplinary perspectives has strengthened case study research, this also makes it all the more important to be transparent about my own perspective on and interpretation of case study since 'How case study researchers should contribute to the reader experience depends on their notions of knowledge and reality' (Stake, 1995, p. 100).

A comparison of definitions of case study research from different philosophical perspectives reveals agreement that a case is 'an in-depth description and analysis of a bounded system' (Merriam and Tisdell, 2016, p. 37). There is little agreement on other aspects of case study, with researchers adopting definitions and adapting application according to their purpose. For Stake, case study is more of an art form involving 'the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances'(1995, p. xi). For Yin, it is more of a scientific process, 'an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the

boundaries between phenomenon and context are not clearly evident' (Yin, 2014, p. 18).

I take a realist stance, starting from a problem-situation in my context (inconsistency in feedback practices). My case study uses abductive and retroductive reasoning 'to investigate particular social conditions under which a causal mechanism takes effect in the world' (Fletcher, 2017, p. 183). It starts with actors' accounts but these are seen as 'corrigible and limited by the existence of unacknowledged conditions, unintended consequences, tacit skills and unconscious motivations' (Bhaskar, 2013b, Critical Naturalism, para. 7). I aim to find the best explanation of reality through engaging with existing theories and research, but acknowledge that, like them, my observations are incomplete and that my conclusions are only the best explanation among many possible alternatives given these data at this time.

My aim is not only to explain but also to critique social conditions. It is therefore my intention to produce concrete recommendations for action to improve the feedback experience for all involved. The findings of my case studies are intended to contribute in some way to the 'world of action' in which they begin (Bassey, 1999, p. 23). In Stake's (1995) terms my study is instrumental rather than intrinsic since my interest does not lie in the case itself but in what it might help me understand about the nexus between context, academic teacher's beliefs and feedback practices.

Following Stake's guidance, I attempted to 'enter the scene with a sincere interest in learning how they [actors] function in ordinary pursuits and milieus and with a willingness to put aside many presumptions while we learn' (Stake, 1995, p. 1). I was aware that no matter how non-interventionist I tried to be, my actors would be aware of my presence as an audience for their thoughts and actions. Both the presence of a digital voice recorder during feedback events and the fact that I asked my actors to record their thoughts made the 'ordinary pursuit' of feedback slightly extraordinary. I also added interviews and explicit reflection to the naturally occurring feedback process. I have struggled with putting aside my own emerging beliefs on how the feedback process should work, since I must remember that my aim is to understand how different worldviews impact on feedback practice in a given context.

In Bassey's terms, I aim for 'particular studies of general issues – aiming to lead to fuzzy propositions (more tentative) or fuzzy generalisations (less tentative) and conveying these, their context and the evidence leading to them to interested audiences' (Bassey, 1999, p. 58). I aim to provide enough context for my audience to then decide if my findings have any implications for their own practice in context.

In addition to purpose, it is also customary to define a case study in terms of size. In this enquiry, each case is the lived experience of one academic teacher (actor) and I have chosen three cases in one site – the university where I work. Although this gives me an emic perspective with regard to the university level context, each of us works in a different part of the site and

experiences its effects on our individual worlds of work in different ways. Our paths cross rarely. The site and actors will be the focus of the next section, but it is important to highlight at this stage that my cases were not chosen to be either typical or atypical of their context. In accordance with the social-constructivist elements of my worldview, these actors represent nothing but their own beliefs and practices, as constructed through interaction with the researcher.

I therefore believe that case study constitutes the best strategy to adopt in exploring my chosen topic. I see the feedback process as a context-specific social interaction between academic teacher and student but in this study, I seek to understand the complexities of the underlying beliefs of the more neglected actor in this interaction, the academic teacher. These beliefs may be more or less strongly held, may be in conflict with one another, or may not surface in particular conditions while they may flourish in others (Buehl and Beck, 2015). The following sections will outline the context, actors and conditions examined in this study, which are also explained in greater detail in the first section of every case in Chapter 4.

## 3.3 The context

Since I am engaged in the socially situated study of lived experience in a political, historical context, it is appropriate first to describe the context of the study and the backgrounds of the actors involved.

The University of Bristol is one of the 24 members of the research intensive Russell Group and is working hard to bring its reputation for teaching and learning into line with its reputation for research, as is shown in the University Strategy document launched in 2016 (University of Bristol, 2016).

In February 2017, the new Education Strategy (2017-2023) was approved by Senate and one of the five actions prioritised for delivery in the two years from 2017-19 concerned assessment and feedback:

> *Action 2.3* We will embed assessment for learning, as articulated in our Institutional Principles for Assessment and Feedback in Taught Programmes across the institution such that a common approach to assessment is formed articulating the cyclical relationship between learning, assessment and feedback and improving students' understanding of their learning experience. (University of Bristol, 2017b, p. 2)

The Institutional Principles of Assessment and Feedback in Taught Programmes referred to above had been approved by Senate in June 2015 for implementation from the start of the 2015/16 academic year as part of the Annual Programme Review cycle. In the Introduction to the principles document, it states that:

> The principles are a statement of the University's approach to assessment and the provision of feedback such that both staff and students share common expectations and are aware of their responsibilities. (University of Bristol, 2015, p. 1)

Feedback practices continued to be a priority for the institution as it was identified as a negative flag in preparation for the Teaching Excellence

Framework. In February 2017, a supplementary document known as the 'Framework for the return of feedback to students on their work in taught programmes' (University of Bristol, 2017a) was approved by Senate.

In June 2017, Bristol was awarded a silver in TEF and the newly established Bristol Institute for Learning and Teaching (BILT) announced its first theme as being assessment from 2017-2020. An educational seminar series on the theme of assessment with invited internal and external speakers began. There were several events focused on assessment and feedback during the data collection period. Two of my actors regularly appear at these BILT events.

It was in this context and at this moment in the history of the institution that my research enquiry was designed, and data generated and collected. This may well have impacted on the cases that emerged for study as will become clear below; it certainly was central to the emergence of my research questions.

## 3.4 The methods

### 3.4.1 The emergence of research questions

Despite my support as an academic manager and teacher for a consistent student experience of feedback across the university, my relativist epistemology prompted a healthy dose of skepticism regarding the policy initiatives outlined above. As Wenger points out,

> One can design systems of accountability and practices for Communities of Practice to live by, but one cannot design the practices that will emerge in response to such institutional systems. (Wenger, 1999, p. 229)

I was curious to see to what extent staff across the university did actually share common feedback beliefs and practices. Thus, my research problem was born. I had found 'something that perplexes and challenges the mind so that it makes belief … uncertain' (Dewey, 1933, p. 13 cited in Merriam, 2016, p. 76). My own experience with attempts to standardize the delivery of feedback among teachers on one pre-sessional English for Academic Purposes course (Gillway, 2016) had revealed considerable variability within a single subject area. How much more room for divergence might be evident across a university?

I was aware of the evidence of perceived variability in feedback reported in the literature (Orrell, 2006; Bailey and Garner, 2010; Nicol, 2010; Beaumont, O'Doherty and Shannon, 2011; Bennett, 2011; Carless *et al.*, 2011; Watty *et al.*, 2014; Bloxham *et al.*, 2016), which has been attributed in part to teacher beliefs in some studies (Lee, 2010; Guénette and Lyster, 2013; Ferris, 2014; Junqueira and Payant, 2015). It has been noted that studies on teachers' beliefs about feedback are few in number (Bailey and Garner, 2010; Guénette and Lyster, 2013; Lee, 2014; Junqueira and Payant, 2015; Dawson *et al.*, 2019), and even fewer address the question using a think aloud protocol that allows enquiry into the transition between potential and actual feedback in different contexts (Orrell, 2006; Li and Barnard, 2011). The study

is guided by the following core research questions, which have taken shape gradually in dialogue with both the literature and the data:

- RQ1 Feedback practices
  - RQ1a What are the distinguishing features of the feedback practices of different academic teachers in different parts of an institution of higher education?
  - RQ1b How do feedback practices compare?
- RQ2 Feedback-related beliefs
  - RQ2a What are the academic teachers' feedback-related beliefs?
  - RQ2b How do beliefs compare?
- RQ3 Visibility of beliefs in practice
  - RQ3a To what extent are the beliefs visible in feedback practices?
  - RQ3b To what extent do different conditions impact enactment of different beliefs?

### 3.4.2 The selection of cases: the actors

My selection of cases for the study was never intended to be random, but turned out to be less purposeful than anticipated. I wanted to ensure that all my actors had been introduced to the institutional principles for assessment and feedback, so I decided to put out a call for research participants through the University's Academic Staff Development team. I asked the head of the team (who is also the session leader) to email all past participants at sessions on feedback (see Appendix I-IV for email and consent forms). My intention was to then select from the respondents according to Stake's first criterion, which 'should be to maximise what we can learn' (Stake, 1995, p. 4). Yin (2014) also recommends a range of contextual conditions that might be pertinent to the study. I had intended to include a case from each of the six Faculties: Arts, Biomedical Sciences, Engineering, Health Sciences, Science, Social Sciences and Law as I believed that disciplinary differences might be pertinent to my study (Lea and Street, 1998). In fact, I only received four responses to the call, so did not have the opportunity to be selective.

It was, therefore, more by chance than design that the four members of staff who responded to my initial call for participation came from different Faculties: Arts, Biomedical Sciences, Social Sciences and Law, and Science. However, I do not see them as representative of their Faculty or even their School, since 'Two persons, or two minds, are never the same; they cannot occupy the same place with the same point of view' (Holland and Lave, 2009, p. 1). This was confirmed by the actors in background interviews, where they clearly indicated an awareness of variation in beliefs and practice within the contexts of their Schools.

There are other interesting differences between my actors in terms of gender, role and experience that emerged as pertinent to the research and so are summarised in Table 1 below. I have not included fuller descriptions of the actors' backgrounds in an attempt to maintain promised anonymity.

Table 1 is the first indication that my research design has proved to be 'emergent and flexible, responsive to the changing conditions of the study in progress' (Merriam and Tisdell, 2016, p. 18). Having conducted a background interview with an academic teacher in the School of Modern Languages in the Faculty of Arts, it emerged that the feedback given was in Spanish and was only given in one mode to students at one level – thus precluding a comparison of different conditions within this case. This case was therefore excluded.

*Table 1 The actors in the study*

| Pseudonym | Faculty | School | Academic position |
|---|---|---|---|
| *Anthea (F)* | Life Sciences | Cellular and Molecular Medicine | Reader |
| *Colin (M)* | Science | Chemistry | Teaching Fellow |
| *Jay (F)* | Social Science & Law | Education | Senior Lecturer |

As the literature suggested that experience might be a relevant factor (Basturkmen, 2012b; Buehl and Beck, 2015), I went back to the Head of Academic Staff Development and asked if they would put out the same call to the participants in the feedback session run specifically for Part Time Graduate Teaching Assistants. I received one response from a first-year doctoral student in the School of Law. Towards the end of a very interesting initial background interview, I discovered that he would not be giving feedback on any more course work during my data collection period of the 2017-18 academic year, so it was with regret that he was also excluded from my sample.

Thus I arrived at the three cases which form the basis of this study and these individuals have shaped my study in interesting ways, as will be seen in the next section on methods of data generation which describes the boundaries of each case in terms of time, events, and processes.

### 3.4.3 Methods of data generation and collection

Since I consider case study to be a 'strategy of inquiry' (Merriam and Tisdell, 2016) rather than a method, it is appropriate at this point to explain the processes (methods) I used to generate and collect data and how these align with both my case study research strategy, my research aims and my worldview. This will help to establish the trustworthiness of this study as will the inclusion of explicit reflexivity to address positionality in my understanding and interpretation of the data. I will make explicit how my thinking about my data generation methods changed through my interaction with my actors. At times I purposefully choose to use the term generation rather than collection in line with the view that data are not just out there awaiting collection, but are socially constructed between researcher and actor (Merriam and Tisdell, 2016). However, some naturally occurring data were simply collected since they already existed irrespective of my research, such as student work and policy and procedure documents.

Merriam and Tisdell (2016) highlight interviews, observations and document analysis as the most common methods used in qualitative research studies. These are all open to potential bias as the researcher's knowledge and beliefs might influence what is noticed or which questions are asked. My initial research design proposed the use of semi-structured background and follow-up interviews to mitigate any positionality and strengthen trustworthiness. I also planned the use of 'think alouds', or concurrent verbal report protocols, generated as the actors give written feedback on written work. These methods changed slightly during the study to also include what I will term 'feedback observations' and 'talk about text' for the reasons explained below.

### *i) Semi-structured interviews*

My first face-to-face contact with each actor was during a semi-structured interview to establish personal history and context and explore underlying beliefs on issues related to feedback. The semi-structured interview allows the researcher to build on existing theories but leaves room open for new ideas to emerge (Fletcher, 2017). The background interview prompts (see Appendix V) were piloted in a small separate study of two English for Academic Purposes teachers in the summer of 2015 (Gillway, 2016). They contain a mixture of open questions and quantitative rating scales. The actors received a copy of the prompts by email a few days prior to the interview in order to allow them time to gather their thoughts. All had considered the prompts. Colin and Anthea came to the interview armed with notes and documents that they wished to discuss and, although the planned topics were covered, the semi-structured nature of the interviews allowed us to also engage in unanticipated 'talk around texts' (See Appendix VI for sample). The interviews with Jay and Anthea took place in their respective offices. Colin came to my office.

It was during these initial background interviews that I was able to establish the boundaries of each case in collaboration with the actors, which is 'essential to focusing, framing, and managing data collection and analysis' (Harrison *et al.*, 2017, Section 4). Once again guided by the principle of relevant heterogeneity in order to maximize learning, I asked the actors what feedback they would be giving on written work in the 2017-18 academic year and together we established a workable schedule for the generation and collection of data through feedback and document analysis that included a variety of task types with students at different levels of study. My intention was to explore whether any underlying espoused beliefs were enacted across a range of contexts both within and across cases. The data sets are summarized in Appendix VII to show level of student, type and length of task, and mode and duration of feedback event. Although there was no a priori plan to include a range of papers of differing quality, the grade awarded to the scripts also proved to be pertinent to feedback beliefs and practices and so is recorded in the data sets. Similarly, the issue of gender became pertinent in one case and so is recorded. I was not concerned about the official classification of the task as 'formative' or 'summative' since feedback on final summative tasks may also be perceived to be formative feedforward to future learning. I was extremely careful in my interviews not to use terms such as formative, summative, feed forward,

and to check actors understanding of any of these feedback-related terms if they were used. I was aware of the risk of leading questions and underlying assumptions. This is part of the tension between being seen as partly an outsider (different discipline) but partly an insider (member of staff at same institution following 'common' institutional principles, policy and procedure on feedback). I made every effort to present myself very much as a novice researcher rather than expert in feedback or linguist in these interviews.

I arranged follow up interviews after feedback observation data had been collected, generated, transcribed and roughly coded in each case, though before full analysis and interpretation was complete, in order to shorten the time period between the feedback event and the follow up interview. My aim in this second semi-structured interview was to highlight for the actor certain patterns that I had noticed in the data and explore any underlying generative mechanisms. In these follow up interviews, I referred back to my understanding of their espoused beliefs and drew their attention to certain parts of the transcripts or instances of feedback, which we then discussed. This allowed me to check assumptions and explore alternative narratives. These interviews had some elements of 'stimulated recall' but more instances of 'talk around texts' since we were mostly speaking generally about emerging themes rather than trying to explain individual instances of thought or practice (see Appendix VIII for a sample). These follow-up interviews were enormously valuable in strengthening the trustworthiness of the study in the absence of co-researchers with whom emerging interpretations could be discussed. My research journal was another valuable source of reflexivity, where assumptions could be questioned at a later date and alternative narratives sought.

### *ii) Feedback observations*

It was during the background interviews that it became clear that I might also have the opportunity to observe feedback in different modes, since each of the participants planned to give feedback both in writing and orally at different points in the year. Since the focus of feedback changed considerably in my pilot study between modes, I was keen to include both oral and written feedback in each of my cases. My pilot study had also indicated the need to leave a time gap between the background interview and the recording of the first feedback observations in order for the memory of what had been said during the interview to fade and thus decrease the possibility of an actor performing to script.

The observation of feedback took the form of either an audio recording of an oral feedback event (see Appendix IX for a sample) or a recording of the thoughts of the actor as they gave written feedback (see Appendix X for a sample). The first was more naturalistic in that the only difference to everyday practice was the presence of a digital voice recorder. Anthea's oral observation took place in her office. Colin's took place in a chemistry lab. Jay's took place in her office but using Skype with a student in Hong Kong.

The second procedure was less naturalistic in that participants needed to be 'advised' on how to 'think aloud' and had to get used to the process (See Appendix XI for guidance notes). There were interesting differences in how

they approached the recording, which have impacted my conception of the research method. I now conceive of them more as socially constructed recordings of talk around text rather than internal conversations (See Section 5.3 and 6.3). These recordings also show some of the contextualisation of the feedback event provided, giving me insight to the mood, timing and location. I therefore consider this sociocognitive aspect of the recordings to be added value rather than a problem (Smagorinsky, 1998).

#### *iii) Document analysis*

The recordings were considered in combination with the documents collected from the actors during or after the event, which included assignment briefs, annotated scripts, feedback forms, grade sheets, marking rubrics and assessment handbooks (See Appendix XII and Appendix XIII for sample annotated scripts). These again added to the rich description of the context of each case.

## 3.5 Data analysis

The theoretical and practical flexibility of thematic analysis (Clarke and Braun, 2017) attracted me to this tool for identifying, analysing, and interpreting key patterns (themes) in my data. They highlight its ability to 'capture both manifest (explicit) and latent (underlying) meaning' (Clarke and Braun, 2017, p. 298), which renders it an appropriate fit to the stratified view of reality within which I am working.

My thematic analysis was carried out using NVivo for Mac, version 11 (QSR International, 2017) – which, as a first-time user, I learnt more about as my analysis progressed. I was pleased that it enabled identification and storage of illustrative extracts for qualitative data reporting as well the opportunity to quantify the data according to codes for comparison both within and across cases (see Appendix XIV for sample coding). This enhanced trustworthiness as the dominant codes were not entirely dependent on the subjectivity of the researcher.

The process of coding, categorising, theorising, writing, and reading has been iterative, with codes being added, changed or deleted during the research process. The process would have been enriched had there been co-researchers with whom I could have discussed the data. It is described below in terms of the critical realist approach to case study as exemplified in Fletcher (2017).

### 3.5.1 Empirical demi-regularities

My analysis began with the background interviews. After transcription, I listened to the recordings and checked the interpretation of what had been said. I made corrections at certain points guided by my access to the annotated scripts and supporting documentation (that the transcription service had not had access to) and also added non-verbal information such as pauses, and bolding for emphasis as I felt the emotion expressed at times might be pertinent to my study (See Appendix XV for key to transcription conventions). In this way I got to know the data. The recordings of feedback

observations and follow up interviews were transcribed and checked in the same way (See Appendices VIII-X for samples of transcripts).

My initial coding of background interviews and 'think alouds' allowed the emergence of demi-regularities, or tendencies, for further analysis (Fletcher, 2017) and 'active pursuit of themes' (Tuckett, 2005, p. 78) in follow-up interviews, which were then also coded. I first coded the interview data using descriptive labels linking them to the topic of the espoused belief, such as student role, teacher role, written assessment as elicited from the structured interviews prompts. These are Maxwells' (2012) organisational categories, or topic-based 'bins'. I then created four theoretical categories (Maxwell, 2012) for feedback data – feedback practice (espoused), feedback focus (actual), feedback formulation (actual), and feedback levels (actual). These categories were influenced by my reading of the literature on feedback (Hattie and Timperley, 2007; Basturkmen, East and Bitchener, 2014) and teacher beliefs (Fives and Gregoire-Gill, 2015). For example, the category of feedback levels contained codes for task, process, self-regulation and self, drawing directly on Hattie and Timperley's (2007) work. As I was coding the 'think aloud' data, I added a substantive category (Maxwell, 2012) of emotion with sub-categories for feedback receiver (when consideration for the feelings of the audience was expressed) and giver (when a clear emotion was expressed). Codes in this category included both positive and negative emotions (e.g. disappointment, enjoyment, surprise).

Each category started with pre-set codes from the literature (e.g. focus or formulation in the category of feedback practice) or my pilot study (e.g. content, language, or organization in the category of feedback focus) but, as analysis progressed, other codes emerged that were assigned to the relevant category (e.g. non comment or positive in the category feedback formulation), and codes were changed or deleted as the data warranted. Over the course of the coding process my initial 24 codes expanded to over 100 (See Appendix XVI). This use of pre-defined codes is in line with a critical realist approach, which advocates 'climbing on the shoulders of prior theorists and confronting the existing corpus of knowledge' (Archer, 2013a, para.24) since knowledge is fallible and socio-historically contingent. The number of pre-defined codes is a balancing act between a desire for guidance on structuring rich data and the risk of not considering data that challenge original assumptions.

As my analysis progressed, I began to notice patterns and added codes. I then went back to cases previously analysed to check if I had missed instances of this thought or behaviour. My ongoing reading also brought other coding systems to my attention, which I applied to my data in order to see if it revealed anything new. For example, the broad category of 'content' as a focus was further sub-divided based on a 6-item classification in the literature (Barker and Pinard, 2014) which revealed interesting differences in focus on error as opposed to omission in content feedback both within and across cases. This seems to reflect the analytical strategy recommended by Yin (2014) of identifying issues within cases and then themes that transcend cases, though the actual process was a lot messier than the presentation of the data suggests. I also used Nvivo queries and

visualisations to identify the most dominant codes and connections between codes and thus engaged in quantification of qualitative data (Tashakkori and Teddlie, 2010). Dominant codes helped identify demi-regularities for follow-up interviews, such as positives, non-comments and questions.

### 3.5.2 Abduction

Following Fletcher (2017), I moved from identifying demi-regularities through coding to a process of abduction in which empirical data are re-described using theoretical concepts.

The beliefs literature influenced my initial file structure, which was labelled espoused and actual on the assumption that data from interviews would be espoused and from the 'think alouds' would be *actual*. As the analysis progressed and I became more familiar with the concept of depth ontology, I noticed that I also coded the 'think alouds' for espoused beliefs – since not all thoughts were enacted in the *actual* written feedback event, or, in critical realist terms, not everything moved from *real* to *actual* layers of reality. Abduction necessitates continual movement between different levels of reality to fully understand the phenomenon under study. Thus, while interview data remained as *empirical* – being filtered through actors' perspectives – 'think aloud' data not only challenged existing theories of 'think alouds' as internal dialogue (Sasaki, 2008) but also challenged existing definitions of beliefs as either espoused or enacted by introducing the actual vs empirical enactment.

### 3.5.3 Retroduction

The final stage is retroduction, which aims 'to identify the necessary contextual conditions for a particular causal mechanism to take effect and to result in the empirical trends observed' (Fletcher, 2017, p. 189). *A prioiri* conditions differed both within and across cases in terms of level of study, task type, and mode of delivery of feedback comments. However, iterative analysis of the data brought to light unplanned differences in conditions related to the quality of the student work as well as the level of student engagement in the feedback dialogue.

Thus, this study can help to modify existing theory on the importance of dialogic feedback, by focusing not on the opportunities for dialogue but on the quality of the interaction within that dialogue.

## 3.6 Considerations of ethics, positionality and reflexivity

Official ethical clearance in line with British Educational Research Association guidelines was obtained through the department where I am registered as a research student in August 2016 before any data collection took place (see Appendix XVII). Written consent was obtained from the three academic teachers, and written or recorded oral consent from students whose written or oral feedback conversation I was given access to. Initial contact was made with the teachers through an email from the then head of Academic Staff Development and leader of a CPD session on feedback in which it was made clear that I was seeking volunteers for a research enquiry as part of an EdD at another university.

In order to minimize any psychological discomfort or threat to self-esteem, throughout our relationship I presented myself first as an inexperienced research student and second as a colleague with a shared interest in understanding the feedback puzzle that we all faced. I was conscious of the need to avoid expressing any evaluative judgement on the feedback or the beliefs expressed. Transcriptions of interviews were shared with the teachers, as was my emerging analysis of the relationship between their espoused beliefs and their focus and formulation of feedback. This took place in a follow-up interview, during which they all expressed an interest in how their practice compared to others'. Although not answered at the time, I hope they will accept my invitation to read the final draft of my study in gratitude for their participation and thereby satisfy their curiosity.

Everyone remains anonymous through the use of pseudonyms for teachers and codes for students. Teachers were aware that certain references to their individual experience used to contextualise the data might give clues to their identity should colleagues from our university read the study, and they were happy to accept this risk.

It is hoped that the alignment of strategy, methods of enquiry, and data analysis techniques with my worldview, as well as the transparency of decision making with explicit consideration of positionality throughout this research design chapter has helped to establish the trustworthiness of this study. While my preference would be to engage in collaborative research for the enrichment of perspectives and mitigation of biases that this would bring, the use of a research journal for internal conversations and a follow up interview for a participant check have proved enlightening to this study.

# 4 Findings

This chapter will present an analysis of the findings in three cases of feedback observations: Colin, the scientist; Anthea, the applied scientist; and Jay, the social scientist. Each case will open with a brief description of the nature of the tasks and modes of feedback. This will be followed by a presentation of the distinguishing characteristics of the feedback process – both the public layer visible to students and the private layer observable by the researcher through think aloud protocols. The actors are referred to by pseudonyms throughout and the data sources are cited using the following code: BI for background interview; FUI for follow-up interview; and FO for feedback observation (e.g. FO-C4 represents data from student 4 in Colin's case – this may be a script, a think aloud or a conversation with a student).

## 4.1 Colin (the scientist)

Feedback was observed on 3rd year UG Chemistry lab reports on two different tasks. Feedback on a 2000-word lab report was given electronically on a coversheet and on script, with reference to a criteria sheet. Feedback on a 400-word lab report (data summary) was given orally while highlighting sections of the report with reference to a criteria sheet during a 10-15 minute individual appointment in the lab. Students submitted each type of report three times during the first half of the year and got their feedback before the next submission. All were graded and the grades counted towards their final grade.

### 4.1.1 Distinguishing characteristics *observable by students*

Active student engagement in the feedback process was the most noteworthy feature of Colin's feedback practice. He claimed to provide two kinds of written feedback: transferable feedback on a coversheet and task-specific feedback on the script. He was also proud of his innovative oral 'instant feedback' [BI] since it was 'pretty much the only chance that students ever get to discuss their work' [BI].

#### *i) Coversheet*

The coversheet (which was designed by Colin and shared with colleagues) was distinctive in that at the top of the page was a box with questions for the student to complete on submission of the report. Apart from name and title of experiment, the box also included a request for a particular focus for the feedback; an explanation of how feedback from the previous report had been acted upon; and an estimate of the grade deserved. All except one student engaged with this dialogue box. In giving feedback, Colin sometimes left a Word comment in the margin in response to the requested feedback focus or estimated grade – though this behaviour was not consistent. For example, the student's request 'Ways to improve my discussion section' [FO-C3] received the comment:

> It's a little bit too low level. You don't need to explain how to calculate the TON, and I think you're in danger of over-interpreting some of your experimental observations (eg wrt rates of reaction). I'm not saying you're wrong, but I'm not saying you're right – sometimes more subtlety is needed. [FO-C3]

On another cover sheet, the estimated grade of 130 received the comment 'Yep, I reckon so' [FO-C7]. In other cases, no comment was made directly in response to the student contributions. This 'interactive coversheet' (Bloxham and Campbell, 2010) was a new feature of Colin's feedback practice in the year of data collection 2017-18, which he believed 'worked really well' [FUI]. It was the 'fantastic' [FUI] idea he had applied from a Continuing Professional Development (CPD) session on feedback and the reading of an 'excellent' and 'very readable' [BI] book by Bloxham (2007) - which he brought with him to the background interview with 'relevant' parts highlighted in pink. Interestingly, Colin did not explicitly mention the concept of dialogic feedback while discussing his beliefs. In fact, this particular aspect of the coversheet was mentioned only when I raised it in the follow-up interview.

The dialogue box was followed by a space on the coversheet for overall feedback, which included the instruction that 'It should include at least one suggestion as to how you can improve your next report'. Once again, Colin did not explicitly mention the term feedforward or formative assessment in our conversations about his beliefs, but he described 'a little overall summary of what's good, what's bad, you know, that will be transferable' [BI]. Feedforward was implicit in his practice, mostly in a second paragraph of overall comments and sometimes signalled explicitly using phrases such as 'you need to make sure…' [FO-C7], 'the thing you most need to work on' [FO-C4], or 'that's the most difficult thing about moving to the next level' [FO-C5]. Colin was frustrated when a student did not include a coversheet, so actually typed an impromptu one. He also mentioned his frustration with colleagues who did not 'fill the bloody thing in' [FUI] and instead wrote 'See text for comments' [FUI] because in his experience 'they [students] always read the feedback at the top, they don't necessarily go through and read all the comments' [FUI]. The teacher grade was usually added at the end of the overall comments section, so was somewhat hidden among the feedback text rather than being isolated at the top or bottom of the sheet.

The final section of the coversheet consisted of a selected extract from the marking criteria 'to show where the mark has come from' [BI]. This might include several bands from the rubric with relevant criteria highlighted at the different levels, or just one band if the student performance was consistent across criteria.

Thus, the coversheet could be described as promising practice since it invited student engagement with the feedback process in a number of ways: student-initiated dialogue to guide the feedback focus, self-evaluation of performance, and action in response to previous feedforward comments. Engagement with the coversheet was, however, not consistent from either teacher or students.

### *ii) On script comments*

On script comments were made available to students using the Word comment function with a range of 20-22 comments appearing on each script and a range from 1–26 words per comment. Interestingly, however, only three comments (two on FO-C3 and one on FO-C6) sought student

clarification, whereas all five scripts contained tutor clarification (n=16). Comments were formulated in a range of different ways: statements (e.g. 'Either crude product or an oil. It's not crude oil'); commands (e.g. 'Go and look up 'comma splice''); suggestions (e.g. 'TBH, this information could go in the appendix'); and exclamations (e.g. 'wow!'). There were examples of an imagined dialogue where the student's thinking was extended by a feedback comment (e.g. 'Also,…'). However, the use of questions revealed a lack of invited student interaction on the written scripts. There were rhetorical questions, such as 'How does this prove you've made the correct product? All it proves is that you have something in there that absorbs light' and questions that hid a command, such as 'Why is the caption at the top?', implying it should be at the bottom. There were no real open questions in the written feedback though there were a few teacher display questions eliciting knowledge or understanding, such as 'OK, but what does the pentet tell you about their behaviour?', which might also be seen as inviting reflection.

#### *iii) Oral feedback*

In contrast, the teacher questions in the oral feedback appointments on the short lab report did include real questions seeking student clarification (e.g. 'why do you assume that?') in addition to elicitation questions to which the teacher already knew the answer (e.g. 'Do you know the real answer?'). These oral encounters also provided the opportunity for students to ask questions, among a range of other functions, such as explaining, rationalising and reasoning. In both cases the teacher started the encounter with a focus on results and interpretation of these before moving on to focus on communicating results and finally asking students to estimate their grade based on the discussion and the criteria. In both cases the teacher ended up assigning the grade, but in one case the teacher modelled the reasoning process whereas in the other the student went through the reasoning process. There were several other differences in the quality of the dialogue between the two oral encounters (see section 4.1.2).

Thus, while two elements of the feedback practice (coversheet and oral encounter) clearly sought to engage students actively in the process, the on-script comments did not appear to do so to any great extent and the success of the oral engagement was variable.

### 4.1.2 Distinguishing characteristics *observable by researcher*

#### *i) Absences*

While the student will have had additional visual cues from body language that I was not party to in the audio recordings of the 'instant feedback', the think aloud protocol gave me access to instant feedback thoughts that were not all recorded for the student. This case stood out due to the comparatively high number of comments verbalised in the 'think aloud' that were absent on the script available for students. In total, over 5 scripts there were 35 instances of feedback thoughts that were not recorded in writing.

In some cases comments were consciously omitted (e.g. 'Figure 1's a bit big I'd have said but I'll let her off' [FO-C6]) or deleted (e.g. 'No, I'm going to leave that comment I think actually' [FO-C7]). In FO-C3, a comment was

saved for the coversheet ('I'll make a comment to that effect when I get back to the top at the end'). At times a non-comment was welcome when it was a filter of emotional reactions (e.g. 'figure 10 full of rubbish oh dear' [FO-C4]). However, more often a non-comment resulted in loss of potentially useful feedback for the student. In FO-C4, the word 'hot' was inserted in the text without the explanatory comment 'Actually filtered hot and that's a crucial distinction', which was voiced in the think aloud. Similarly, in FO-C5 frustration was expressed ('I do wish she'd stop using capital letters for element names') but no comment was made for the student at that point or anywhere else in the feedback.

This absenting was particularly noticeable in the case of positive feedback. For example, FO-C6 scored 83 and the 'think aloud' had 19 positive references. However, the written script only shows 5 positive comments out of a total of 23 comments. Of these, four were simply the word 'good' (see Table 2 below for examples).

*Table 2 Examples of positive feedback in think aloud vs on script (C6)*

| **Comments observed in think aloud** | **Comments visible to the student** |
|---|---|
| That's pretty good. That's quite a nicely written experimental….the experimental is very well written, it's concise, it's to the point and all the things I'm picking out are actually fairly nit-picking because this is a very high standard | 0 |
| That's an important and subtle point that a lot of people often miss. And then she's tried to explain. She's made a comment about this in the next sentence. | On script: Good |
| That's good. The next short paragraph is good. That's again something people miss. | On script: Good |
| Yeah, that last paragraph there is fine. Yep and again she's got the subtle point about the equivalence of the hydride ligands. | On Script: Good |
| A nice analysis. Actually that's a really good analysis. | 0 |
| So figures 9,10, 11 are very good. I've never seen anybody do that before. | 0 |
| She's clearly understood what she's doing, it's nicely written, its nicely laid out, she's got a long list of good references, so I shall say so. | Overall comment on coversheet: It's well written, nicely presented, there are no major errors …and you've picked up on many of the subtleties of the experiment wrt fluxionality etc. There is very little I can tell you to improve on next time. Well done. 166/200 |

In addition to the loss of potentially useful positive comments on the written script, there was also a loss of hedging or softening language that was present in the 'think aloud', which could have implications for the affective impact of comments. For example, the written comment 'You don't take spectra, you record them – try and use scientific language' [FO-C6] was missing the somewhat softening contextualisation in the 'think aloud' of 'OK, so that's pretty good. That's a quite nicely written experimental. Couple of things…' [FO-C6].

When asked in the follow-up interview about possible reasons for this lack of transfer from thought to page, Colin immediately suggested lack of transferability drawing on his experience of the CPD session on feedback. This is not supported by the data as can be seen in the first example in Table 2 above. He also posited compensation and subjectivity (e.g. 'there's other good things going on and also because figures are a bit subjective'[FUI]), as well as distraction (e.g. 'Then I notice another thing and I actually leave a comment about that and forget about the first one '[FUI]).

In the follow-up interview we also explored what made something good enough to get a 'good'. He claimed this would be 'a piece of clearly expounded scientific reasoning' [FUI]. He stated that he preferred to comment in the overall box as students were more likely to read it. These two points were supported by the data.

### 4.1.3 Core beliefs

Colin summarised his core concerns in the follow-up interview as follows:

> I worry about the quality of their writing, of their written English. Some of it I don't think is very good. I worry about the quality of their scientific thinking, you know that working back from the answers to explain your results rather than the other way around. But I guess what I really worry about actually is their focus on marks. [FUI]

This section will explore the beliefs underlying these concerns.

#### *i) Teaching and Learning in Higher Education*

Colin seemed clear on his role as teacher, commenting: 'what I try and do is teach my students to think' since 'that's what it's all about – teaching them to make educated decisions' [BI]. However, he expressed the belief that many students were resistant to this role since 'a lot of the time they would like you to tell them the answer so that they can get the marks, but that is not what I see my job as at all that's when the two worlds collide' [BI]. He lamented the change in motivation for university among students: whereas he had attended out of intellectual curiosity, he believed it was now more about employability - which was not what he thought it should be.

With regard to his own discipline of Chemistry, he stated that 'half of it is about interpreting their results and the other half is about communicating their results' [BI] and stressed the need for 'thinking like a scientist' and 'trying to work out why it hasn't worked', as well as 'being able to write' [BI]. While he believed the students needed to convince him that they understood the chemistry, he claimed that he no longer went through and picked out all the scientific mistakes in a piece of work because they were never going to do that piece of work again. This newly acquired belief in transferability 'was a sort of light bulb moment' [BI] at a CPD session on feedback, which he referred to several times. It could be that this transferable feedback (at the level of process or self-regulation in Hattie and Timperley's terms) is depriving his students of useful feedback on the scientific knowledge specific to one task and they may be left with key misunderstandings.

Colin was proud of his informal friendly relationship with his students, which he contrasted to his own university experience with 'lots of middle-aged white men […] at the front, bellowing and writing indecipherably on blackboards' [BI]. As a 'matey class of teacher' [BI], he saw himself as 'there to help them rather than standing at the front being didactic' [BI] since he believed 'that is the way I think people learn best' [BI]. He spent 12 hours per week with his students and claimed he knew them all as individuals. This was evidenced in the follow-up interview when he provided first names for the surnames I gave him and gave me both a physical description and an evaluation of the lab work and written work of the student concerned, as well as his personalised strategy for teaching them. For example, 'a relatively short girl' who was 'a little bit insecure' was 'better than she thinks she is', so he had 'tried throughout the course to try and convince her of that' [BI]. Another student was 'very ginger and very good' and 'the best female chemist in the class', so received 'high level feedback' and the things he pointed out were 'quite minor details' [BI]. Finally, a 'nervous chap' who 'tends to not get on so well in the lab' but 'his written work is often better than his practical work' prompted attempts from Colin 'to make them see there is more to it than just getting the right answers' [BI]. He used this belief to justify his use of direct language (noted above) in some of his feedback.

### *ii) Assessment and Feedback*

Colin felt 'a lot more confident about these things than a year ago' [BI] thanks to CPD sessions, reading, and successful implementation of new ideas. He credited CPD with the idea for both the interactive cover sheet and 'sitting down with students and going through it with them personally' [BI], both of which he felt were going well. He also repeatedly referred to his adoption of the idea from CPD of not focusing on specific content in feedback that was not transferable (See Section 4.1.2).

However, for Colin, part of the purpose of assessment was to demonstrate understanding since:

> it was only when I came to [this institution] as a post doc and started actually teaching (.) that I understood half of the stuff that I'd learnt at university you know I could pass exams I could answer questions but I didn't understand it um (.) so I guess that is where I'm coming from really [BI]

Hence, his explanation that only reports that explained the data as well as reporting it deserved positive comment.

He believed the purpose of feedback was 'to help them do the next one better', so 'it's a case of telling them which bits of what they're doing is good and how they can improve it'[BI] He believed that his friendly relationship with students aided his feedback since 'I know all the students personally, so I kinda feel I can be direct and they can take that without thinking I'm rude' [BI]. He expressed the belief that he did not think a lot about how to formulate his feedback, but was 'fairly informal again in line with the way I do the rest of my teaching' [BI]. However, he acknowledged a need for audience awareness since he conceded that his direct style presented a

difficulty with first years because he 'can't write to somebody in their fourth week at university this is rubbish' [BI]. The data suggested greater audience awareness than he believed (see Section 4.1.4iii for more details).

### 4.1.4 Extent to which beliefs were observable in practice *under different conditions*

Colin's feedback was observed on different tasks with different modes. These differences impacted the degree to which his beliefs were observable.

#### *i) Chemists need to be able to communicate their results, but student writing quality is poor*

In the oral feedback encounter, all thoughts that were verbalised were shared with the students. As outlined in Section 4.1.2, this was not the case with written feedback where thoughts were filtered either consciously or unconsciously and not all became available to the student experience. In addition to a difference in quantity of feedback between modes, there was also a difference in focus, which the quantification of codes in the data brought to light.

Whereas content was the most frequent focus of think aloud, on script comments available to students focused on language, content, presentation, thinking, and organisation in decreasing order of frequency, with only the first three categories appearing on all scripts (See Table 3 below). The focus on language spanned both modes and all students in practice. In written feedback the number of comments on language were equal to or greater than the number of comments on content for each student. In the lowest scoring text, 55% of total comments focused on language and in the highest scoring text 41%. If we take a concern for the quality of written English to include presentation and organisation as well as language, then the proportion of comments was even greater with the lowest scoring text at 60% and the highest at 55%.

*Table 3 Number of written comments per focus available to students*

| grade | script | unclear | content | thinking | language | presentation | organisation | total |
|---|---|---|---|---|---|---|---|---|
| 83 | C6 | 0 | 6 | 4 | 9 | 3 | 0 | 22 |
| 72 | C5 | 1 | 6 | 0 | 6 | 4 | 3 | 20 |
| 72 | C3 | 1 | 4 | 1 | 7 | 7 | 0 | 20 |
| 65 | C7 | 1 | 6 | 5 | 6 | 2 | 0 | 20 |
| 58 | C4 | 1 | 6 | 1 | 11 | 1 | 0 | 20 |

In the oral feedback, there were a similar number of focus points but with a much more extended focus on each. The feedback was more clearly divided into interpreting results and communicating results, with a focus on communication being greater in both cases at 59% and 60%.

*Table 4 Number of oral comments per focus available to students*

| grade | script | interpreting | communicating | total |
|---|---|---|---|---|
| 65 | C1 | 9 | 13 | 22 |
| 65 | C2 | 8 | 12 | 20 |

### *ii) Students need to think like scientists: working things out, interpreting results, making educated decisions*

The espoused belief in the need to develop scientific thinking surfaced much more clearly in oral feedback encounters than in written ones – not only in terms of frequency of focus, as shown in Tables 3 and 4, but also in terms of the proportion of the time in the oral encounters spent modelling or scaffolding thinking. However, the two students responded differently to the situation, thereby themselves creating different feedback conditions in the oral interview, as can be seen in Table 5.

*Table 5 Analysis of student teacher interaction in oral encounters*

| | **Length of encounter in minutes and seconds** | **Teacher turns** | **Teacher short turns <4 words** | **Student turns** | **Student extended turns >3 words** | **Teacher words** | **Student words** |
|---|---|---|---|---|---|---|---|
| C1 | 8'20" | 34 | 5 | 33 | 4 | 1149 | 138 (11%) |
| C2 | 12'27" | 75 | 20 | 75 | 43 | 1335 | 499 (37%) |

In FO-C1, there were four extended student turns out of 33 total student turns in eight minutes twenty seconds of feedback dialogue. In three cases, these involved the student sharing the thinking underlying her behaviour, which in one case was accepted by the teacher ('yeah, I take your point'). The academic teacher also modelled thinking while proposing a grade based on the criteria and discussion, rather than forcing the reluctant student to self-assess. In FO-C2, the student produced 43 extended turns out of a total of 75 student turns in 12 minutes and 27 seconds of feedback dialogue. The student not only shared his thinking processes in 30 turns, but also asked questions for clarification in five turns. The remaining extended student turns consisted of expressions of agreement or signals of understanding (e.g. 'that makes sense', or 'OK, yeah, I understand'). On one occasion, student C2 demonstrated understanding by actually completing the teacher's explanation (i.e. 'Teacher: …that just makes the' Student: 'huge IR'). The teacher modelled scientific reasoning in one episode concerning a mistake, concluding that 'I can't give you any more information than that because I don't know the answer, but that's probably[...]'[FO-C2]. He then moved on to scaffold the student's own thinking processes concerning a second mistake using a series of open questions (e.g. 'What about this one?'; 'Why not?'; 'Why do you assume that?) and they swapped roles with the student leading the dialogue and the teacher making one-word comments (e.g. 'yeah', 'right', 'OK') and ending with 'that's exactly right' [FO-C2].

Thus, it was student engagement in the feedback process that created the opportunities to develop scientific thinking and this could not be guaranteed simply through providing oral feedback opportunities – it was the quality of the dialogue on both sides that allowed this belief to flourish. Good quality dialogue would also provide conditions for the student to demonstrate and check understanding, in line with his belief on the purpose of assessment.

### *iii) Knowledge of students as individuals and friendly informal interactions help learning and feedback*

The variability in tutor response based on knowledge of individual students could in part explain the variability in turn taking outlined above. A closer look at the formulation of feedback also showed evidence of variability in directness of feedback comments in different conditions, rendering them more or less friendly. For example, with respect to use of literature, three different students had the same issue with not using literature as a point of comparison for their work. The feedback comments varied considerably in level of directness, as illustrated in Table 6 below.

*Table 6 Variation in formulation – levels of directness*

| Mode | Student | On script specific comment | Closing general comment |
|---|---|---|---|
| ORAL | C2 'one of the top students in the class' | 'one thing you don't have in your report is any literature references'<br>'You gave up'<br>'It's all out there. '<br>'If you'd gone and found the paper that did talk about this compound it would have told you that…'<br>'so that's one thing that I would say you're lacking from your report is reference to the literature' | 'Take home message. Put your literature into your paper.' |
| ORAL | C1 'quiet' 'insecure' | 'that does kind of illustrate another point that I would say is that this is in the literature. None of the experiments that you do are new so you really do need to try and find some literature results for the purposes of comparison and references'<br>'just to show that you are aware of the wider context of these things' | 'The one thing you haven't really done is found the literature thing to put it with' |
| WRITTEN | C6 'the best female chemist in the class' | 'Consider reporting the literature data here for comparison' | 'maybe put data from the literature into the experimental for purposes of comparison' |

In oral feedback with C2, 'one of the top students in the class' who 'you can have a proper grown up scientific argument with' [FUI], the student's comment that 'it was really hard to find literature for some of this' received a very direct set of responses, that the student was able to respond to with equal directness (e.g. 'I did find literature for that and I found literature for that'; 'I found something but it was old and hard to read'; 'I didn't give up'; and finally 'OK, I understand').

In oral feedback with C1, there was a much more hedged response with the 'quiet', 'insecure' student that he claimed to have been trying to convince

throughout the course that she was 'better than she thinks she is' [FUI]. She simply responded with 'yeah' throughout this interaction and, when invited to self-assess at the end, declined to do so despite informal attempts at persuasion (e.g. 'oh go on'), saying 'If I knew, I would have been able to do a better job'. Interestingly, C6, the 'the best female chemist', also received a hedged approach to the same issue in written feedback, with suggestions rather than commands. There was other evidence of an awareness of the need to soften written comments in C6. The initial thought '[typing] You can't say this is 4H. NMR integrations are a ratio and there is nothing to compare this one with strictly speaking. I'll put strictly there' became available to the student as 'Strictly you can't say this is 4H…' [C6].

This consideration of formulation was not something Colin was aware of, as stated in both background and follow-up interviews, but it did seem to form part of his belief in personalisation. The risk was that in some cases the interpersonal may interfere with the informational role of feedback by obscuring key messages.

#### *iv) Students are obsessed with marks because they are driven by employability, not intellectual curiosity*

Colin did ask students to grade themselves rather than just assess their performance using descriptors, which could be seen to work against his desire to overcome the students' obsession with grades. However, the grade on the written coversheet was quite unobtrusive, added at the end of the overall comments section, and the students were encouraged to justify their allocation of grade based on the discussion and with reference to the criteria.

#### *v) Feedback needs to be transferable so should not be task specific*

In addition to the evidence presented in Section 4.1.4i on the shift from a content focus in think alouds to a language focus in written comments, it was noticeable that the proportion of time spent discussing transferable skills for research was much greater in oral encounters, where it represented 15% of overall comments, compared to 3% in written comments.

Thus, it can be seen that different beliefs did surface to different extents under different conditions.

### 4.2 Anthea (the applied scientist)

Feedback was observed on three different written tasks in second and third year UG Immunology units in the 2017-18 academic year. The data set consisted of written feedback on anonymous 2000-word coursework essays (literature reviews) submitted in November of the second year that count for 5% of the final grade; formative written and associated oral individual and group feedback on voluntary timed exam practice essays (no word limit) written at home in December of the third year; and formative written and associated oral feedback given in January of the final year on first drafts of a 2000-word introduction that would constitute 30% of the final project grade.

### 4.2.1 Distinguishing characteristics *observable by students*

The most noticeable public feature of the feedback was that it was handwritten on paper, even when the assignment had been submitted electronically – except in one instance when Word track changes was used. Where student numbers allowed, the assignment was returned at a face-to-face oral feedback meeting. In the case of the large second year cohort, where meetings were not deemed possible, feedback was returned to students in a sealed envelope that they collected from outside of the teaching laboratory. Anthea showed awareness of the challenge for her audience of handwritten feedback in the follow-up interview, saying 'It's handwritten so I hope you can read it' [FUI] and, when discussing her use of track changes in one instance, commented 'I imagine they found it easier to read than my handwriting, but people don't usually complain about it. It's a bit small' [FUI]. In fact, she did ask students if they could read her writing in oral feedback meetings. She also complained about the handwriting of one student saying 'It's quite hard to read this little writing' [FO-A12].

#### *i) Coversheet*

Her thorough, systematic approach was the second most noticeable feature. In one of her roles of responsibility at School level, Anthea was involved in the introduction of certain pro-formas since in her view 'workload is a big issue and consistency is an even bigger issue because the students talk to each other' [BI]. For the second year essay, which Anthea saw as 'formative and summative' [BI], the pro-forma was a purple sheet. At the top, the student was identified by candidate number, but the marker was identified by name so that the student could follow up with questions. A mark out of 100 was given in the top right corner. The top section of the sheet consisted of a series of check boxes organized in five columns from excellent to poor and nine rows according to the criteria, which were explained in question form in the bottom half of the page (e.g. Expression: Is your grammar, punctuation and spelling correct?). She ticked questions and added handwritten comments, as can be seen in the screenshot in Figure 1 below.

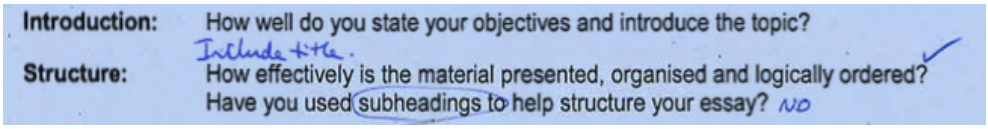


*Figure 1 Extract from year 2 cover sheet with handwritten annotation*

On the purple sheet, students were told that the feedback 'should be used as a guide to improve your essay writing' and were advised to use the back of the sheet to reflect on marks and feedback and to 'use this reflection to inform discussions with your personal tutor about your academic development'.

For the third-year draft introduction, students received 'guidance notes' which opened with a paragraph explaining the purpose of the feedback to students:

> You will not be given a mark for your draft introduction. These comments are provided to help you improve the Introduction, and perhaps the style of the whole piece of work, before you submit your dissertation by the 09th March. These comments therefore represent formative feedback.

This was followed by headings for open comments on 'Content, Organisation, Referencing, and Presentation'. Anthea's comments were written in note form and included praise, suggestions and questions – which were then discussed in a meeting and the answer noted on the sheet (e.g. 'List looks good so far. How are you generating it? Endnote' [FO-A22]).

For the timed practice essay, there was no pro-forma, but students received an A3 copy of the Faculty marking criteria with a grade circled and short handwritten comments added to justify it. Thus, pro-formas were used within tasks to aim for consistency across markers, but there was variation in use of pro-formas across tasks.

### *ii) On-script comments*

In all instances, the on-script feedback consisted of ticks and editing in the body of the text, and short comments in the margins. Other than the many ticks (from 25 to 58 per 2000-word second-year script), there were only 5 positive comments, which each consisted of the word 'good'. When asked about possible interpretations of ticks in the follow-up interview, Anthea confirmed that for her the ticks were acknowledgement of content and 'positive reinforcement' for students since 'if they're getting lots of ticks, they'll get a good mark and I know that they probably look at that first anyway' [FUI]. However, on-script ticks did not entirely correspond to grades: for example, those students who received a grade of 58 got between 29 and 44 ticks on their script. In the second-year essays, the remaining comments focused mainly on omissions or errors in content, including figures and in-text citations. There was a list of summary comments at the end of each second-year text, which in all but two instances started with a positive comment on coverage. This was followed in all instances by a list of points that 'could have' or 'might have' been included. There was a shift from this justification of grade to direct recommendation for student action in six of the eleven second-year summative essays when the focus was on referencing. Students were directed to use a consistent format, use recent references, consult the unit handbook for more information, or 'Look at any journal article to see how this is done'[FO-A6]. This feedforward approach was used throughout the final-year practice essays and draft introductions with a wider focus and formulated as imperatives or suggestions (e.g. 'Put references inside full stops' or 'Could you include a figure here?' or Explain?).

In all instances, there was a high level of consistency between the on-script comments, and any additional documentation such as cover sheet and criteria. In one second-year example, the concise justification on the criteria sheet 'No figures or tables included' was formulated as a useful transferable learning point in the post-script summary comment 'The use of figures would allow you to illustrate more examples of molecular details' [FO-A11]. In some instances, students were directed in the post-script summaries to see the cover sheet for more details and likewise from the cover sheet to 'see notes on text'.

### *iii) Oral feedback*

The formative written feedback on final-year exam practice essays and draft project introductions was followed by oral feedback meetings – either individual or paired. Anthea highlighted her preference for group feedback in the follow-up interview saying:

> when I originally did it, I did them as a group and that worked fine because they can learn from each other's mistakes then, as long as they don't feel embarrassed about it, so there's pros and cons of doing it separately or as a group [FUI]

For practice essays, individual meetings lasted between 25'30'' and 40'15", while the paired interview lasted 50'20". The longest individual meeting consisted of 77 extended teacher turns (> 3 words) of up to 404 words and 39 extended student turns (51%) of up to 84 words. The shortest individual meeting consisted of 70 extended teacher turns of up to 169 words and 27 extended student turns (39%) of up to 80 words. The paired interview consisted of 144 extended teacher turns of up to 289 words and 49 extended student turns (35%) of up to 44 words. Of these extended turns, one student contributed 21 and the other 28, and each student had one teacher-initiated sustained interaction of 8 or 6 turns respectively. However, whereas one student tended to contribute justifications of behaviour, which resulted in several isolated extended turns, the other initiated, questioned and checked comprehension, which resulted in more sustained short interactions. Thus, teacher talk increased in paired discussion, but individual student contribution decreased, and the nature of student contribution varied despite careful use of nomination and topic initiation by the teacher.

Interestingly, there was a lot of comparison with other student performance, both in this cohort, past cohorts and the current second years. This was used to exemplify advice and help students learn from others' mistakes (e.g. a medic from the past who put in lots of extra reading but missed the fundamentals) but also from their good practice (e.g. the revision notes of the top student from a past cohort).

A comparison of two individual final-year oral feedback meetings of the same length on different tasks showed an interesting variation in interaction patterns and student talking time (See Table 7 below). Whereas the exam practice essay consisted in parts of long teacher turns in the form of mini lectures, the draft project consisted of more turns for both teacher and student, with the shorter teacher turns making room for more extended student turns. In fact, the student contributed two of the longest turns at 162 and 137 words compared to the teacher's longest turn of 82 words. The student spoke almost three times as many words (283%) in the project meeting. Thus, the draft project oral feedback encounters more closely resembled a conversation than the essay feedback encounters, which were more like 'their chance to get input' [FUI]. The teacher's contribution to the interaction was determined to a large extent by her perceived purpose for the task.

*Table 7 Comparison of teacher and student oral contributions between tasks*

| Think Aloud | Teacher (extended) turns | Teacher words | Student (extended) turns | Student words |
|---|---|---|---|---|
| A16 40'15" Exam practice | 77 (72) | 4704 total 404 word longest turn | 77 (39) | 852 total 84 word longest turn |
| A21 40'16" Draft project | 220 (191) | 4313 total 82 word longest turn | 218 (138) | 2410 total 162 word longest turn |

Although the meetings on the same task were clearly planned to follow the same structure, in some cases the student took control, so there was some variation in focus. In all second-year essays, the teacher focused on exam strategies and revision strategies, since 'the point of this whole exercise is to help you think about how you're going to do your revision – that's the whole purpose of it really' [FO-A14]. She explained the criteria, with particular emphasis on the need for integration from across lectures, and extra reading to get higher grades. She stressed the value of figures and tables, which she claimed would help thinking and recall, save words and time, and demonstrate understanding of detail thereby attracting marks for content. She explained her marking process and shared the relevant part of her marking grid with each student so they could see their omissions (e.g. 'I do this little grid and then line up everybody so I can see. And this is just the notes from the grid that I had for you [FO-A16]; 'when I actually mark what I do, I make myself a grid, so I've just cut **your** bit off it' [FO-A17]). One student initiated and returned to a focus on choice of structure until eventually the teacher admitted 'I understand now what you were trying to do' [FO-16]. Another student initiated a focus on independent thought and critical ability, which prompted the teacher to state that 'moving up and down the scale for **me** is often much more determined by things that are right and totally wrong' [FO-A14]. With the draft introduction task, Anthea opened with a question on what had been done since submission and then worked through on-script comments and coversheet guidance before finishing by looking at next steps. Different students were able to initiate their own topics to a different extent in different ways (see section 4.2.4).

Anthea showed an interest in the wellbeing of each student, particularly at the end of oral meetings. Despite claiming in the follow-up interview that she had not got to know many of them, she showed awareness of individual demands on their time such as job interviews, and their different needs as medics, vets or scientists (e.g. 'quite a culture shock for you guys coming from professional programmes' [FO-A14]). A student vet confirmed that this was the first essay she had written since sixth form. Anthea was also aware that the overall project grade was weighted differently for scientists to medics (18.6% vs 25% of final degree). She introduced topics beyond writing, such as study habits and time management. In one case, the illness of a student and impending bad weather prompted Anthea to change from handwritten to electronic feedback (e.g. 'rather than print this out and annotate it and have a sit-down discussion with her, I'll make some track

changes and email it to her in case she doesn't want to come in tomorrow' [FO-A18]). Illness and family were frequent topics of conversation, and students shared their anxieties. In two cases the recording was turned off at the end to exclude the researcher so a more personal conversation could take place.

### 4.2.2 Distinguishing characteristics *observable by researcher*

#### *i) Consistent, structured, thorough approach*

Students may or may not have noticed the high degree of consistency between the comments on marking grid, scripts and coversheets, or the structured approach to feedback evidenced in the pro-formas that Anthea had introduced, or her systematic approach to oral feedback meetings, but the time and effort involved in achieving this consistency was immediately obvious to the researcher from the opening of the first think aloud:

> It's 10 o'clock on Sunday 29th and yesterday I re-read the article and this morning got up at 7 o'clock and I read for nearly 3 hours on the article and spent the last 10 minutes making a grid to help me with my marking feedback. [FO-A1]

As well as the 'infamous grid' [FO-A12] (which was copied for external examiners as well as students), she mentioned the need to 'get in the zone' [BI] with all her papers 'spread out to be able to do it properly'[BI]. The papers spread on her kitchen table included the purple cover sheet, a guidance sheet that converts qualitative adjectives on the purple sheet to degree classifications, and two pages from the unit handbook with the marking criteria. As she read each script, she annotated it and the purple sheet in pencil until she had read several scripts, when she changed to pen. Similarly, she put a little tick in pencil in the relevant cell in the grid until she had enough evidence of understanding, when she changed it to a big blue tick. Initial grades were also in pencil until she got a feel for the task through a range of scripts. As marking progressed, she made notes of points that she could address in the oral feedback session.

The feedback process was not only highly systematic but also very thorough. When reflecting on her own feedback process in preparation for the background interview, Anthea noted 'I don't ever leave errors untouched' [BI] and, when talking to a final year student, she pointed out that she was 'thinking quite critically and going through and looking for every little thing' [FO-A22] in an effort to help the student improve their work. In the case of linguistic errors, this is not time consuming ('when I'm seeing it it's so quick to just do it I just do it' [BI]), but Anthea also checked every reference and, where she did not know the article, she searched for it online, which was more time consuming. When searching for one particular article, she commented 'Now I know why this job takes me so long' [FO-A1]. As she read, she made notes on post-its for things to check, and once the checking was done the post-its were removed and annotations made on the script and purple sheet.

Anthea was aware that her colleagues might not dedicate as much time to feedback as she did, commenting that 'I am quite keen and probably spend way too much time compared to my colleagues' [BI]. However, she was not

willing to change her process. When comparing herself to a colleague who told her he spent three minutes on essays, she voiced frustration that he was able to come up with the same grades as her in moderation but insisted that:

> I spend ages doing this stuff but I can't make myself do it any faster because I can't read any faster and I'm compulsive. If there's something in there that I don't know, I'll go and look it up on the computer even though I know it probably won't affect the grade I've given [FUI]

Anthea joked that her 'colleagues may not feel that that is what they want to be doing with their spare inverted commas [laughter] time' [BI], but the second most striking feature from the think alouds was the enjoyment that she got from keeping up to date through this feedback process. Whereas the most frequent emotion expressed by the other two actors was frustration, in Anthea's case it was interest. Over half of her scripts prompted comments such as 'that's interesting'. On one occasion, she commented 'that's the fun thing about setting these essays as well – I always learn something new about what's going on' [FO-A2]. In her background interview she explained the rationale for her move from research to teaching as 'I really enjoy the student side of it' [BI].

### 4.2.3 Core beliefs

In the background interview, Anthea was uncomfortable with the word belief, which sounded 'very philosophical' to her. When asked about what helps or hinders the feedback process, she mentioned two enablers: pro-formas and oral conversations; and one barrier: students not showing up. The underlying beliefs in consistency, communication and student responsibility surfaced across the interviews and feedback observations. The following sections will highlight the inherent tensions between them and the conditions under which they can flourish.

#### *i) Teaching and Learning in Higher Education*

Anthea described teaching and learning as a partnership where 'both sides can learn from the other' [FO-A21]. Although her prepared response for the question at the background interview on the role of the academic teacher was 'I guess it would be to impart knowledge and encourage the development of skills um [.] and basically to encourage students to pick up on that and take it further all the time'[BI], she came to the conclusion that 'the role of the teacher is really to inspire and enthuse' [BI] and talked a lot about the academic teacher as a role model motivating students while preparing them for their life and career 'to help them be the best they can be one way or another'[BI]. For her, 'even if students aren't committed to the particular subject area, the students still have to develop a good work ethic and develop transferable skills useful for whatever they want to do' [BI]. She seemed very clear on the student responsibility to 'grasp all the opportunities for personal development'[BI] and 'be proactive' [BI] so they can 'get the most out of their degree' [BI], but concluded that 'it's a bit complicated isn't it when you sit down and think about it' [BI].

When discussing her discipline in the background interview, she stated that 'content is the biggest thing for science' and she defined this 'real scientific

content stuff' as including 'content and accuracy and figures and diagrams and labelling'[BI]. While she would like her students to 'be willing to get excited to tell everybody about it and why they should care about it' [BI], she accepted that 'an important part of their degree is really to decide if they want to pursue research in the discipline or not because it's alright to decide not to' [BI]. This belief in individual difference surfaced throughout her practice and presented an interesting tension with her drive for consistency.

### *ii) Assessment and Feedback*

Anthea was well versed in the institutional guidelines on assessment and feedback having been involved in their introduction at university level. Despite her claimed lack of confidence (e.g. 'I certainly wouldn't claim to be an expert on it'[BI]), she had knowledge of assessment and feedback due to her past and current roles, her engagement with professional development events, and her reading. This showed in her use of terminology such as assessment literacy, feedforward, formative and summative. Although she did not use the term dialogic feedback, she talked to a student about the need for feedback conversations [FO-A21], which she pointed out are mentioned in the institutional guidelines [BI], and credited her knowledge of this concept to a colleague in another Faculty [FUI]. In the background interview, she explained that 'experience and observing colleagues are probably the way that I've shaped what I've done rather than the educational literature and also feedback from students because they tell me it **is** very useful what I do for them' [BI].

With regard to the purpose of assessment, she expressed the belief that 'from a discipline point of view it's whether they can explain the science to different audiences' [BI]. She explained that 'we are **not** just looking at the content, we are looking at the ability to communicate points' [BI]. This was linked to her strong belief in the use of visual summaries of information (e.g. 'I think it is vital that students **include** diagrams and I always say they should' [BI]). Indeed, she explained the need for diagrams in all her feedback, and in the background interview expressed frustration at disagreement on the need for diagrams when standardizing criteria across the Faculty, in contrast to her satisfaction with her persuasion of another UK university to include diagrams in their criteria as part of her role as an external examiner. This belief in visuals surfaced again when challenged in the follow-up interview about the need for essays (e.g. 'it's interesting because a lot of students still interpret essay to mean just writing and no figures and tables and they won't make me happy at all' and 'just shows how I would want to see it because, as I'm reading a paper, I'm drawing my own diagram if they haven't got one'[FUI]). She was heard drawing diagrams during several feedback meetings.

Anthea acknowledged that tasks differed in purpose, stating that 'in an exam setting they're just trying to get the information down and show that they know it, because they do need to know a body of evidence' [FUI] but again stressed the need for communication (e.g. 'some people say we shouldn't set exam essays because they're not, um what's the word, an authentic task or whatever, but actually I think they are a way of communicating information' [FUI]). This need for clear communication surfaced again in her

focus on organisation (e.g. 'so the organisation and structure is as important as far as ease of reading' [BI]) and this is where she disagreed with colleagues once again (e.g. 'some of my colleagues would say that they don't really care whether it has an introduction and conclusion or not, whereas I **definitely** expect them to be there' [BI] and 'I've had conversations with other colleagues and they say that they tell people not to waste time on introduction, which I don't think is right' [FUI]). Anthea was conscious of her particular concern with audience awareness as part of her belief in the importance of communication (e.g. 'So I guess I am more aware of who's going to read it' [FUI]).

When asked about the purpose of feedback, she explained that it was to 'help students to improve performance, knowledge and understanding. Without feedback on their level of attainment, it's hard for them to know where improvements can be made and it's the same for skills including communication skills'[BI]. For her, the 'overall focus is what has been done well and what the student could improve' [BI]. She recognised the dilemma that:

> if the students do very well and have done a great job of covering the work, I think **they** are the students who actually want and expect positive feedback and reinforcement but actually there is much less to say about their work because they have done a really good job of it [BI].

Moreover, she expressed frustration that 'some of them never submit that draft which is a really silly thing to do'[BI]. It seemed this concern for student engagement lay beneath her preference for oral feedback (e.g. 'I think the best opportunity is obviously when you can talk to the student as well' [BI]) because 'if they don't have a discussion about it then […] they are less likely to engage' [BI]. She pointed out that according to student feedback to the School, they:

> value the contact that they get with academic staff in our school - that's the overwhelming thing that the staff are accessible - and I'm sure part of that is that they're receiving feedback and one-to-one meetings about that feedback [BI]

However, her concern for student responsibility surfaced again in the comment 'I think there is lots of opportunity for students to receive feedback but whether they engage with it or not is another matter' [BI]. The next section will draw conclusions about those conditions under which students are best able to engage in the desired communication and thus prepare themselves for life and career.

### 4.2.4 Extent to which beliefs are observable in practice *under different conditions*

Anthea's feedback was observed in different modes, different tasks and different year groups. The core beliefs outlined above were present throughout her practice but were able to flourish under certain conditions.

*i) Tutor as a role model preparing students for life and career*

Anthea's 'professionality' (Evans, 2008) was observed in both her words and actions through her systematic, thorough and consistent approach to feedback as outlined above.

Her focus on transferable skills and self-regulated learning was evident in summative assessments, but more obvious in formative ones. Likewise, it was evident in written feedback but more obvious in oral feedback situations. In each formative oral feedback event, she opened up the conversation to include life skills, such as time and stress management. She often used personal anecdotes from her own education, research and family life to illustrate points for students. In one oral feedback event the student actually verbalised how Anthea had been a role model for her, saying: 'when you gave me that some feedback saying you kind of asked a few questions and I was wondering if I should be asking all of those questions as well?' [FO-A21].

*ii) Importance of feedback conversations*

One element of Anthea's belief in communication surfaced in her support for oral feedback conversations. She explained that she only returned written feedback at the oral appointment, not in advance, stressing the importance of 'seeing how their facial expressions change or how the conversation goes' [BI]. This again revealed an underlying belief in personalisation that might be in tension with a desire for consistency.

In the background interview, she highlighted the absence of oral feedback conversations in second-year feedback practice, saying 'we don't actually get a chance to meet with them and talk about it so that is a potential place for improvement' [BI]. It is important to note that the existence of the oral conversation itself does not guarantee consistent or quality dialogue. As outlined above, the task might have an impact on the nature of the oral feedback conversation – not only in terms of focus but also interaction patterns. However, Anthea's feedback conversations were not limited to the oral mode but formed an interesting blend. She posed questions on the cover sheets that she then followed up in the oral session and answered on the cover sheet. She also engaged in email conversation with her students where necessary.

As well as task difference, the nature of a conversation depended on the level of engagement of both parties. In the background interview she recounted with enthusiasm her experience as personal tutor looking at the feedback a student had received across units:

> I have anywhere between 5 and 7 tutees in each year; not everybody brought them or attended those meetings but most of them did and we had a discussion, and the person who **needed** the discussion most actually brought **everything** and he was really engaged with it and he had planned for himself what he was going to do to try and put things right but I would do it again; it was interesting [BI]

In the follow-up interview, she recounted a conversation with her Head of Teaching about policing the exam practice essays and oral conversations if

they were made mandatory. Her view was that 'if you say it's mandatory they may well just do it and those that don't, it's their own fault, you know, it's an opportunity' [FUI]. This belief in student responsibility was most evident in the contrast between two final-year project meetings, as shown in the next section.

### *iii) Importance of student role*

In the follow-up interview, Anthea handed over a full package of drafts, feedback and final projects with associated documentation for two students, describing the first as 'clever' and the second as 'a totally different kettle of fish' [FUI]. These comments seemed to refer to the level of engagement of the two students. The first had engaged by email and used post-it notes on her draft to guide her teacher's feedback. Anthea pointed out that this was unsolicited behaviour. On her notes in preparation for the oral feedback session with this student, Anthea wrote 'an example of co-creation – both sides can learn from the other' [FO-A21] and in the actual feedback interview the following conversation took place:

> Teacher: I realized that it's actually quite a conversation because you've got your little post-its in there as well.
> Student: Sorry.
> Teacher: No, no, I think it's fine and I'm just thinking from the point of view of providing feedback we like to think of it as a conversation but actually it was even a conversation while I was reading it.
> Student: While you were reading it, yeah?
> Teacher: While I was reading it because the post-its were there, so that was funny. [FO-A21]

This student not only initiated more topic shifts in the oral feedback conversation but had already influenced teacher-initiated topics through her post-its. One post-it asked for reassurance that a diagram was not 'too low quality' or too 'cartoonish' and also asked for advice on how to include a reference. This led to written comments on the cover sheet ('I think Fig.1 looks OK' and 'you could number figures and tables on separate lists' [FO-A21]), and was followed by an extended discussion in the oral session on the difference between tables and figures. Anthea was pleased with this student's engagement in the feedback process as evidenced in the final introduction (e.g. 'you can see the dramatic difference just by looking at it' [FUI]). This introduction received a final grade of 78.

The second student had submitted a much less developed draft introduction at only 1506 words instead of 2000, with no content page to indicate the anticipated structure of the rest of the project. It was dense text in the wrong font with no spacing, which Anthea asked him to change - pointing out that it constituted a barrier to the feedback conversation ('it's just it's easier for me to read, write, make little notes and it'll be easier for you to see them as well' [FO-A22]). This did change in the final draft. The student was able to initiate two topics during the oral session: one on study anxiety and the other on use of Google docs. Anthea did learn about Google docs and also asked him to send her one article that she had not come across. However, the final examiner's report on the completed project included the same comments that had been given on the draft introduction and at the

feedback meeting concerning brevity, the need for a diagram, the unexplained use of abbreviations, and the need to proofread the references list. In this case, the revised introduction received a final grade of 58. This student had been given the same feedback opportunity but had not engaged with it to the same extent. Thus, the feedback had not become uptake (Winstone and Carless, 2020).

This case illustrated that no matter how consistent and thorough the approach, the success of the feedback process ultimately depended on both people involved in the conversation around a particular task (Dunworth & Sanchez 2016; Esterhazy, 2019). Anthea wanted her students to be proactive, but when they were, they broke the consistency of her feedback conversations to a certain extent. She wanted pro-formas for consistency among colleagues but accepted that 'different markers do it in different ways' and 'everybody's mind works slightly differently' [FUI]. This came to the fore when:

> the office tried to constrain us by giving us comment sheets, because the external examiner for the final year ones had asked for comments, so they literally wanted the candidate number and then a big open box for comments and, as you can imagine, I don't adapt well to do that so I just had to photocopy my grids and gave them those [FUI].

### 4.3 Jay (the social scientist)

Feedback was observed on three different tasks at three different levels of study using different modes during the 2017-18 academic year in the School of Education.

Written feedback was given using Grademark to seven first-year undergraduates (UG) [FO-J1-J7] on a 2000-word 'qualitative lab report' [FUI] submitted in November as part of the summative coursework assessment for a research methods unit. Teaching at UG was new to the participant, as was using Grademark. The feedback and grading process took between 33'15'' and 54'06'' per script. Grades awarded ranged from 45 to 82.

The Word comment function was used for written feedback to eight postgraduate taught (PGT) students [FO-J8-J15] on a 3000-word evaluation proposal submitted in January as part of a summative mini research project on an optional unit. They had already been offered a ten-minute tutorial to discuss a one-page outline, which not all had attended. Students came from a range of different MSc programmes, and some were part-time. The feedback and grading process took between 22'49"and 43'14". Grades awarded ranged from 52 to 78.

The Word comment function was also used for written formative feedback to one distance EdD student [FO-J16] on the 12,000-word second draft of a resubmitted literature review chapter of his thesis in January 2018. Earlier feedback had been given in December 2017. Overall summary comments were sent by email. This was followed one week later by a discussion on Skype. The written feedback event lasted 116' 06"and the oral Skype feedback meeting lasted 89' 08".

### 4.3.1 Distinguishing characteristics *observable by students*

All Jay's feedback was provided electronically and was very conversational: it engaged cognitively and emotionally with the audience, focusing mainly on thinking and organisation.

#### *i) Coversheet*

Electronic feedback forms were used across the school [BI] but the newly introduced Undergraduate Feedback Form differed in certain interesting ways to the established Assignment Feedback Form used for Masters (PGT) programmes.

The first page of both forms consisted of a grid to be completed by the student with candidate number, tutor name, unit code, date of submission and word count. It also contained a request for student consent to the work being used in teaching, and acknowledgement of compliance with ethical guidelines. At UG level, there was also a box for students to request a specific feedback focus. The UG form stated:

> There is a space on the form to indicate areas where you would like specific feedback – this is a place for you to be proactive about areas where you would like to improve or feel you require support. You do not have to complete it.

None of the seven UG students in the sample completed it. Both levels were told to expect feedback to indicate areas of strength and 'improvement' (UG) or 'weaknesses' (PGT) in addition to their grades.

The following two pages consisted of the criteria, which varied according to level of study. The UG criteria were more explicit and the descriptors more fully developed. For example, the criterion 'style and presentation' at PGT became 'clear and appropriate presentation' at UG, and the corresponding descriptor 'not very well written or presented' contained more information when expressed at UG as 'poorly presented: writing style unclear with significant grammatical and spelling errors; limited attempt at providing references (e.g. only referencing direct quotations) and containing bibliographic omissions'. This might explain why the PGT form had a space after every section of criteria for open comments whereas the UG form did not. Jay did not use these spaces. Other sets of criteria were combined differently (e.g. 'Knowledge and Understanding' at UG included descriptors from both 'Knowledge and Understanding' and 'Approach and Analysis' at PGT; while 'Use of sources' at PGT was divided into 'Critical use of research and academic sources' and 'Analysis of wide range of evidence' at UG), or labelled differently (e.g. 'Argument and conclusions' at UG was labelled 'Organization and Structure' at PGT, but contained similar descriptors such as 'a coherent and strong argument that is logically structured and supported by evidence' at UG and 'exceptional structure and organization with original arguments' at PGT). Both contained an optional section on research methods, which Jay used at both levels.

Both criteria sheets listed certain points separately. At PGT, length, referencing and proofreading were assessed as good, to be improved or unacceptable. At UG, the points and assessment were slightly different (see

Figure 2). Jay carefully located crosses at different locations within boxes or on boundaries (e.g. 'I'm going to do it on a borderline between those two' [FO-J2]), and sometimes checked two boxes.

**Research methods (where appropriate):**

| | |
|---|---|
| | Develops and employs appropriate research methods and critically reflects upon the experience of using them |
| | Selects appropriate research methods and demonstrates understanding of their advantages and limitations |
| x | Selects appropriate research methods and demonstrates understanding of how they can answer research questions |
| | Satisfactory understanding of possible research methods, but with limited understanding of appropriate application |
| | Limited understanding of possible research methods and of appropriate application |
| | Incomplete or inappropriate selection of research methods and poor understanding of approaches to conducting research |
| | Inappropriate selection of research methods and inadequate understanding of approaches to conducting research |

| GUIDANCE ON WRITING AND PRESENTATION | Good | Satisfactory | Needs improvement | Unsatisfactory |
|---|---|---|---|---|
| Length of assignment | x | | | |
| Writing - clarity and fluency | | x | | |
| Writing - spelling and grammar | x | | | |
| Referencing and citation | x | | | |
| Format of bibliography | | | x | |

*Figure 2 Extract from completed UG feedback form FO-J2*

On the final page, there was a box for 'general comments and suggestions for improvement' at UG, or 'overall feedback comments' at PGT, from first and second markers. At PGT, Jay used this space to type overall comments on both the written assignment and the linked oral presentation, indicating the grade for each element and its weighting (written 90% + oral 10%). At both levels, Jay's overall comments took the form of short paragraphs of between 41 to 202 words, with the shortest comment on the highest grade and the longest comment on the lowest. The paragraphs began with positives and then used the words 'For a higher grade I would like to see…', except in the case of the highest grade, which only contained positives.

Another interesting difference was the position of the grade: at PGT the agreed grade was written in a grid before the criteria checklists; at UG the mark was written after the criteria but before the overall comments. This could influence what the student actually focused on, but the marker had no control over this. Jay did add her name after the grade.

### *ii) On script comments*

The number of on-script comments per script varied between 25-51 at UG and 23-48 at PGT, with 97 comments on the 24-page EdD chapter. The comments tended to be quite detailed and specific, with up to 87 words in one EdD comment.

A noticeably large proportion of comments were formulated as questions (30% at UG; 49% at PGT; 36% at EdD), with multiple questions in one comment at times. Many of these questions seemed to be used to model or prompt thinking:

> Is this the case for CAF? Or have you just taken this from Leadbetter/Daniels/ Edwards etc? Can the outcome be achieved without new ways of working? Probably… Maybe it is just about collaborative work, or possibly the object is identification of additional needs? And the outcome is provision of services to support children/young people? [FO-J11])

Sometimes this prompt to thinking was made even more explicit (e.g. 'To what extent does this constitute a community do you think? Worth reflecting on and problematising' [FO-J13]). Questions were also used to query understanding (e.g. 'Is it? I thought that Daniels based his work on Engestrom?' [FO-J11]), seek clarification (e.g. 'What do you mean by that?' [FO-J6/J12/J15]) or gain further detail (e.g. 'Can you be more specific?' [FO-J5]; 'Such as?' [FO-J8]).

Question marks were not always used in a conventional way (e.g. 'T: So do you use all these to structure your data collection and analyse your results???????? St: Yes, I did' [FO-J16]) and their use was not confined to grammatical questions. Jay also used them to indicate tentativeness (see indented comment above). This practice was also adopted by the EdD student (e.g. St: I am thinking I could still use these four ideas as the prompts to discuss inclusive education in HK? T: Yes, I think this works well – see my earlier comment! [FO-J16]).

In some cases, the questions received answers at a later point in the feedback process and short written conversations took place (e.g. 'Why is this? Having read on you do discuss this' [FO-J9]; 'Well done, this is partly addressing my concerns about definition above' [FO-J1]; 'OK I see why you have included this in the lit review now' [FO-J3]). This feedback conversation over time was most clearly observable in the formative feedback of the EdD student (See Figure 3), where Jay and the student had conversations in the comment boxes in several stages, with Jay using different colours at each stage to continue the conversation, and the student replying at each stage in red. In one case there was a 31-line conversation in three stages in black, blue, green and red.

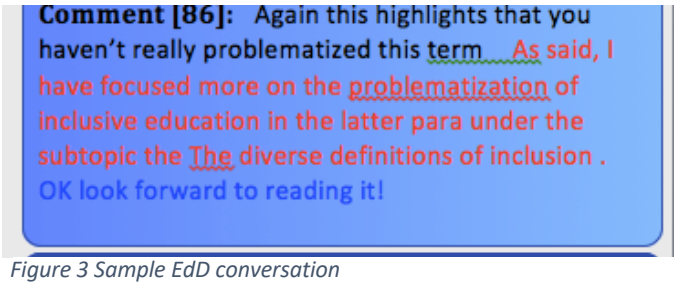


*Figure 3 Sample EdD conversation*

After questions, the most noticeable function of the on-script comments was that of praise (17% at EdD; 20% at PGT; 19% at UG). The lowest scoring PGT script (6.8%) had two positive comments (e.g. 'This is a helpful overview of the purpose of CAF'.[FO-J14]) and the lowest scoring UG script (45%) had one ('Good to see that you have definitions of your types of behaviour' [FO-J5]). These comments were typical in that she was very specific about what was good (e.g. 'This is an excellent description – clear and to the point, and acts as a good illustration. Well done!' [FO-J1]). The praise was often framed from a reader's perspective, pointing out what was helpful or useful (e.g. 'This provides a helpful overview' [FO-J15]). Much of the praise also showed Jay's emotional involvement in the feedback process (e.g. 'You are really

getting to grips with AT - well done! I'm enjoying this!' [FO-J12]; 'Glad you have picked up on this!' [FO-J4]; 'Really pleased that you have incorporated theory into this' [FO-J9]; 'I like that you have stated the focus for your evaluation' [FO-J8]). Evidence of emotional involvement was not limited to praise. Frustration did surface occasionally, particularly with referencing issues (e.g. 'Not in end list!!!!' [FO-J14]) or unsubstantiated claims (e.g. Script: 'The project will bear positive outcomes for all'. Feedback: 'How do you know?!' [FO-J10]).

Other than questions and praise, the majority of Jay's on-script comments were formulated as directives, which were easily transferable to other tasks (e.g. 'Try to avoid making sweeping generalizations' [FO-J1]) and often gave specific rationales (e.g. 'A much wider range of qual data would be helpful for the reader as illustration and explanation' [FO-J2]). However, in some cases the directives were due to an emotional response to content. In one UG script [FO-J5] where referencing was marked unsatisfactory, Jay's dominant question-based formulation was abandoned, and the formulation became increasingly direct as the frustration grew (e.g. 'which authors claimed this?'; 'cite your sources'; 'You must use APA style for your referencing'; 'Check the APA style' [FO-J5]).

The focus of the on-script feedback tended to be on thinking or organization (e.g. 'Would be good to present your agenda for this paragraph more clearly' [FO-J14]). Jay also responded directly to content at times, showing interest (e.g. 'I didn't know that' [FO-J14]), or disagreement (e.g. 'I disagree! It's complex and difficult to get right' [FO-J11]). There were occasional comments on language when it obscured meaning (e.g. 'Language issue! Not sure what you mean here!' [FO-J16]). Students were also alerted to the fact that the feedback comments were selective (e.g. 'Again, pay attention to paragraphing. This is too long. I won't keep pointing this out but you need to address it in several places' [FO-J16]). Overall, the student could see plenty of encouragement and direction for future learning in the on-script feedback.

### *iii) Oral feedback*

Although all students were involved in the written feedback conversations as outlined above, only postgraduate students had the opportunity for oral teacher feedback. The PGT cohort was invited for a 10-minute oral discussion on their outlines, which some did not take (e.g. 'This person didn't turn up for her tutorial. You can tell because some of this would have been ironed out' [FO-J13]). The EdD student had a Skype meeting, which was an interesting mixture of blended written and oral conversation that will be analysed below.

The Skype discussion was clearly controlled by the student, who spoke about half the number of words (3579 student vs 7071 teacher) but had more extended turns (113 student vs 91 teacher) and was the one who controlled the topic shifts and asked the majority of the questions. The student had taken the initiative by emailing a list of questions based on the written feedback that he had received the previous week. These questions were referred to during the conversation, as were Jay's questions from the written

feedback, thus introducing a blending of written and oral feedback conversations. In one case it was the student's written question that was read aloud:

> You said in your comment five six nine, you said "These points here are not contribution for academics" so I said "The whole section has been written. Is it fine now?" You said "Good". I'm not sure if it is fine now because I wrote quite a lot in this section. [FO-J16]

This was a particularly interesting episode as it was one of the rare instances when Jay had not given details of praise and it showed how the solitary word 'good' was open to misinterpretation. Jay read through the section and provided him with clarification of what was good, saying 'I mean, again, there's a fluency issue, but yes that's fine about thinking about why efficacy is useful as a tool to study something - so that's good'[FO-J16]. Interestingly, Jay showed awareness of this precise issue on an undergraduate script when considering how to formulate her feedback ('I don't want to say this is fine because they might think I was referring to their writing' [FO-J5]).

Most of the EdD student's questions were, in fact, for clarification of comments (e.g. 'do you mean that…?'; 'so are you suggesting I should…?'; 'are you talking about…?'). The most frequent turn-taking sequence involved student question for clarification, teacher explanation, student check of understanding, teacher confirmation, student promise of action (e.g. 'OK I will try to rewrite it') and student shift of focus. The student used requests to shift the focus (e.g. 'Can you go to page 32?'), and towards the end of the meeting asked for advice on practicalities of submissions and the viva (e.g. 'When should I…?'), as well as making suggestions to arrange the next meeting (e.g. 'How about…?'). Jay's oral questions were mainly restricted to comprehension checks (e.g. 'OK?'; 'Right?'; 'Do you know what I mean?'; 'Does that help?'), with some questions about navigating the document and arranging meetings. There was only one question to prompt thinking ('so is that tension or barriers?'). This question prompted the student to successfully justify his word choice, which was then acknowledged by Jay ('OK. You've convinced me that "tensions" is the right word… but just work a bit harder to explain that to the reader' [FO-J16]).

This was one of the few discussions around language. Of the 14 different topics discussed, seven were about content and structure, four about practicalities and only three about language. This distribution was, of course, influenced in part by the focus of the original written feedback comments. Jay also indirectly influenced the oral conversation by suggesting topics for discussion in the written comments that were picked up by the student:

> Just want to have a discussion with you to establish that you can claim your research is about attitude. I'm a bit further removed from it now so can't exactly remember how you framed the research. Think this is OK, but want to check. [FO-J16]

Jay's contributions were often non-directive (e.g. 'Now, I'm not saying don't include it, what I'm saying is that you need to convince the reader that it adds value' [FO-J16]). She was careful to give the student ownership of the

process (e.g. 'you need to remember this is your thesis and yes, I will point out things but you need to be thinking about it as a whole, not just following my instructions' [FO-J16]) and responsibility for decision-making. For example, she answered the student's question about a deadline for the next submission with a question ('when do you think you could get those revisions done?' [FO-J16]).

There was evidence of learning in the oral feedback conversation. The student's first turn was to seek confirmation on revisions made following the written feedback (e.g. St: 'I think the flow seems to be better if I put it here'. T: 'yeah very much so… it flows a lot better and it feels more coherent' [FO-J16]). Later, the student noted the importance of coherence (e.g. 'So the positioning is the important. Like first I lead into why, what value it will bring, I mean the integrated framework will bring, then I go to the research questions' [FO-J16]), and the writer's responsibility for 'helping the reader':

> So I think what I'm thinking is what I guess could be, to you as a reader, you might have doubt that should these four cognitive idea be discussed separately or you can't really tell which you know, which experience is better than which experience. So now I try to wrap them up and I try to discuss it in an overall way. [FO-J16]

The learning was not restricted to the student as evidenced in the last topic exchange when Jay wrote an email to colleagues in response to the student's request for samples of philosophy sections:

> And it's hard for me to guide you through it because I find it difficult myself. And because you find it difficult as well, you know I don't feel I'm in a very strong position [FO-J16]

The student's final comment acknowledges the possibility of academic teacher learning, too, when he pointed out that the samples 'might help when you guide some other student through PhD in the future' [FO-J16].

Overall, Jay's feedback offered the possibility for student engagement in a supportive conversation about their work, irrespective of whether the feedback was written or oral, formative or summative.

### 4.3.2 Distinguishing characteristics *observable by the researcher*

#### *i) Purpose of questions*

Jay engaged the absent researcher (me) in a conversation (e.g. 'I'm just going to give this a bit of a rest for a moment so speak to you later' [FO-J16]) in much the same way as she did with the absent student (e.g. 'when I'm marking… it's quite nice to have a bit of a conversation as well sometimes. I don't know to what extent the student's going to read these comments, but there we go' [FO-J1]; 'So we're basically having a conversation here in a… comment' [FO-JR16]). This conversation was visible to the student mainly in the form of questions, as outlined above, but the researcher also gained insight into the purpose behind many of these questions, which Jay saw as 'tools … to think' [FUI re J11]. She expressed frustration when questions were not received in this way, particularly in formative feedback to the EdD student:

> I'll write a question as a comment and then he'll just, like, delete it, not my comment, he'll delete the section and I'm like 'why have you done this?', so you know, 'I'm questioning you. I want you to think for yourself' [FUI]

However, not all questions were to extend the student's thinking. There was also evidence in the think aloud recordings of occasions when Jay was trying to make sense of the script herself. Some of these questions became part of the conversation with the student (e.g. 'so does that mean she is using these observation notes in interviews? mmm' becomes visible to the student as 'So does that mean you are using observations and interviews?' [FO-J8]) and others did not surface (e.g. 'What the hell does she mean? … well, I kind of get that but I don't know whether **she** does, but anyway, we'll let that go' [FO-J8]).

### *ii) Role of emotions*

Many of the thoughts that did not become visible to students were connected to Jay's emotional involvement in the feedback process and her awareness of audience. Jay shared much of her excitement with the student. Of 92 thoughts coded as positive, only four did not become available to students as positive comments (e.g. '**Please** be good. I just **so** want this to carry on being good' [FO-J12]). However, she filtered her more negative emotions (e.g. '**ohhh**, **sooo** disappointing. What topics are you going to cover? [……] Oh. OK, [typing] good to cover process but more important to provide more detail on the topics that will be covered. [typing ends] Oh, now this is **so** disappointing' [FO-J12]) and was aware that she was doing this (e.g. 'I really hate that. I'm remarkably moderate in my comments about it' [FO-J15]). She took great care in formulating her comments (e.g. 'This section is completely inadequate. [typing] This section is not adequate. I'm not going to say completely inadequate although it is' [FO-J14]). At times, she verbalised the reasons for not recording her thoughts for the student (e.g. 'I'll leave that because I've commented on it before' [FO-J4]; or 'I'm not going to pick her up on that. Who am I to say, anyway. Not my field' [FO-J3]). When asked to comment on her reasons for omitting some thoughts from feedback, her responses were linked to audience awareness and transferability. She suggested that 'it's a lot for me to take down and it's even more for them to take in' [FUI], and that in being selective she focused where 'there's more fundamental stuff going on that they need to take away' [FUI].

### *iii) Language*

One very noticeable absence from both her thoughts and her feedback was a focus on language. It was a surprise to hear 'I get so pissed off marking crap language' [FO-J10] because a focus on language was not a particular feature of her think aloud recordings. There were comments to encourage proofreading (e.g. 'I won't keep highlighting, but you do need to proofread carefully' [FO-J8]). The use of precise terminology was highlighted occasionally (e.g. 'This isn't really a dilemma - a problem where all available solutions have disadvantages – it's just a straightforward problem' [FO-J12]), but at other times not (e.g. 'CAF isn't really a project, but I'll let that go' [FO-J15]). Generally, language was invisible until it began to irritate the reader

(e.g. 'I'm going to comment on her use of 'kids' because it's annoying me now. So [typing] try to use less informal language – 'kids' is not really appropriate' [FO-J1]). On examining the student writing, it became clear that many of the PGT scripts contained significant weaknesses in grammar and lexis at word and sentence level that did not feature in the think aloud recording. Interestingly, the summary comment on the script that had caused so much irritation about the language (e.g. 'they're studying a second language but actually their language skills should be better than this' [FO-J10]) linked the language issues to thinking:

> at times your meaning is not clear and there are several grammatical errors, which take away from the quality of your thinking – it would be helpful to read your assignment through with a native English speaker prior to submission, to help you with clarity of expression [FO-J10]

When starting to mark the next paper the following day, Jay commented 'I had a rant about English with somebody yesterday, but the English here it's kind of comprehensible but it's just really awkward' [FO-J11]. She laughed at one or two errors while marking (e.g. 'coding before crate theme [laughter] 'create' she probably means' [FO-J11]) but did not make a comment on the script. In the overall comment, she advised the student to 'attend to the level of academic language' and 'spend time reading through work with a native English speaker'[FO-J11]. However, whereas proofreading on the earlier script was deemed 'to be improved' [FO-J10], the proofreading on this subsequent script was deemed 'unacceptable' [FO-J 11]by the end of marking. Interestingly, this paper scored lower on other criteria linked to thinking, indicating a possible difference in tolerance levels of linguistic error depending on other factors. In the follow-up interview, Jay did acknowledge that she had a different attitude to linguistic error between British and international students, saying:

| | |
|---|---|
| Jay: | If someone has come up through the English educational system and still can't do their 'there', 'their' and 'they're' and still can't get apostrophes right, I'm like [Laughs] |
| Interviewer: | For the record |
| Jay: | I get quite frustrated, yes. For the record, that's [Jay] banging her head in her hands [Laughs] [FUI] |

However, for international students she believed she would comment on 'sentence structure-y kind of stuff if it really impedes understanding' [FUI] but otherwise would not 'harass them about it' as she could 'forgive it a bit' [FUI].

Jay was very aware of the researcher's presence as an audience for the think aloud, giving a lot of contextual details of what was happening around her, anecdotes from her past experience, and explanations for her actions. The behaviour observable by both student and researcher was very much in line with Jay's espoused beliefs, as outlined in the following section.

### 4.3.3 Core beliefs

Early in the initial interview, Jay stated that her teaching was informed by the fact that she was a researcher and that she wanted her students to become 'confident, informed researchers as well' [BI]. Both the units she taught in this study were linked to her research area, which at one point she described as 'the kind of complexity and interesting stuff that goes on in relationships' [BI]. This section explores further her underlying beliefs about teaching, learning, assessment, and feedback.

#### *i) Teaching and Learning in Higher Education*

Jay's most frequently expressed belief about Higher Education was that it should develop thinking. She stated that 'it's about creating a population of people who can think for themselves and think critically and question stuff and want evidence' [BI], and that these people then ensured 'that other people are questioning what's going on as well'[BI]. Her aim as an academic teacher was 'to support students' development of their own thinking' [BI], which involved 'enabling them to become critical thinkers, … to push their ideas forward, … to question what they hear and see' [BI]. She did not want her students to become 'clones of each other', but to 'take these ideas and run with them and interpret them and develop them in their own way and come out with cool stuff' [BI]. She was used to helping PG students transition into becoming independent researchers and was then faced with the new task of teaching first year UG, which meant she had 'been thinking a lot about the difference and what that means' [BI]. Her conclusion in the background interview was that 'it's going to be much more holding by the hand, nurturing' [BI]. She expanded upon this in the follow-up interview, explaining that the ability to write clearly and link methods with research questions was expected at PG but at UG 'that's what you are trying to teach them to do' [FUI] so you would get less irritated with any lapses. This difference in behaviour across levels of study was not observed in the data (See Section 4.3.4), with equal levels of irritation surfacing about lapses, particularly with academic conventions.

#### *ii) Assessment and Feedback*

In line with this view of the role of Higher Education in developing thinking, her view of assessment was as an opportunity 'to help them structure their thoughts' [BI] and to 'give them feedback on what their thoughts, their thinking processes are and obviously the quality of that structure and how they can improve' [BI]. When talking about the mode of feedback, her preference for Word comment rather than Track Changes was firmly linked to her belief about the importance of thinking ('I'm quite … strict about that … because if they have to actively do something with it rather than just accept it, then it means there's more chance that they're thinking about it' [BI]). She was confident of her understanding of different feedback concepts, such as feedforward, and described the use of innovative peer feedback techniques, such as action learning sets, with some of her smaller cohorts.

She expressed very clear beliefs about how feedback comments should be structured, which she saw as 'general good pedagogy' [BI] (e.g. 'in my end

comments, which you probably noticed, I always say this is what you've done well, this is what you now need to work on and this is why you need to work on it' [FUI]). She believed that this general approach ('something positive, what you need to do, why you need to do it' [BI]) would not change at UG. She seemed equally clear on the importance of careful formulation of feedback since 'it's all about how it's received and how that person goes forward' [BI]. She pointed out that with smaller groups at PG 'you're imagining what they're like on the receiving end of it more' [FUI]. She drew on her own experiences of receiving and giving feedback in other contexts to inform her practice, stating 'I always get told I'm a good judge and obviously some of it is about what I see, but a lot of it is about how I write it' [BI]. She credited a recent teacher development course for starting her 'really thinking about [her] practice and how what [she's] doing is interpreted' [BI]. She expressed a belief in 'highlighting stuff that they are doing well so that they can use that to continue with their writing' [BI] and that it was 'really really important' [BI] to use positive language when highlighting areas for improvement (e.g. 'rather than saying this is crap I will say this needs to be better in this way' [BI]), while acknowledging the difficulty in being consistent in this (e.g. 'very occasionally I will say if I'm marking and I'm really tired I might … I won't say this is rubbish, but I might say … this is a poor argument' [BI]). Jay tried to pass this concern for audience to her students. She listed various preferred phrases (e.g. it seems to me; I feel; I think) that she used because she was 'trying subliminally to get the student to think about how is their work being received by others so it's … you have a reader and in this case this reader is me' [BI].

She believed the main focus of her feedback was thinking (e.g. 'a lot of it is about process you know about developing an argument about critical thinking' [BI]). She claimed to focus on argumentation at paragraph and section level and was trying to improve her skill at feeding back on coherence at text level for doctoral students. She returned several times to a strong belief that:

> I'm not a proof reader, you know, that's not my job, my job is to look at their conceptual stuff and if I proofread it, I'd be there forever and actually I don't have the time or the energy and that's not best use of my time [BI]

This was clear in her discussion with her international EdD student when she explained:

> I've always said to you "Don't spend your time getting the English correct because it's more important that we get the ideas correct first" but now we've got the ideas near enough correct, you need to be able to turn it back into good English [FO-J16]

The extent to which these core beliefs were able to flourish under different feedback conditions is explored in the next section.

### 4.3.4 Extent to which beliefs were observable in practice under different conditions

Jay's feedback was observed on both summative and formative tasks at different levels of study using different electronic modes of delivery, both

oral and written. The imminent transition to teaching at undergraduate level for the first time featured strongly in Jay's thoughts at the time of the background interview (e.g. 'it's gonna require some kind of a shift… I think I will cope you know but I don't think I'm gonna be a star at it for a while yet' [BI]). The feedback on a shorter task at this new level did take Jay longer (see Section 4.3), which may have been due to the use of a new electronic feedback tool (e.g. 'This bloody technology, I tell you, it's just getting used to the systems. So I'm not just at the stage where I can do this putting in comments and so forth really easily' [FO-J3]; 'I'm doing it in Word which kinda makes the comments easier' [FO-J8]). However, at the level of enacted beliefs there was much consistency in focus across summative and formative tasks, modes, and levels of study. Differences in formulation were observed. These were linked to Jay's emotional response to different quality of work within the same tasks at the same level of study.

*i) The role of written assessment is partly to help them structure their thoughts*

In terms of feedback focus, Jay was quite unusual in her sustained attention to organisation of ideas (cf. Basturkmen *et al*., 2014). Her belief that she was 'quite good at looking at section by section' [BI] and that at UG level feedback would still be about the 'clarity of each section or the clarity of the agenda' [BI] seemed to be evidenced (e.g. at UG 'You didn't mention this in method?' [FO-J2]; at PGT 'Try to be aware of a clear agenda for your writing – how does this build on what you have written before?' [FO-J14]; and at EdD 'I wonder about this section whether it might be structured a bit more clearly' [FO-J16]). At EdD level, she paused to comment on coherence at the end of each paragraph (e.g. 'Purpose of this paragraph needs to be clearer – I'm a bit hazy on what points you are trying to make' [FO-J16]) and then each section, for example:

> So let's have a look. So [typing] this whole section is helpful in terms of unpicking SE. Just think about structure and line of reasoning. May not need much amending but feels a bit like I am being given a lot of information. Think about argument as well. [FO-J16]).

The EdD student was left in no doubt about the importance of coherence to Jay, who answered his question about the possibilities of passing with 'you need to make sure that this is a coherent whole' [FO-J16]. Jay maintained the same practice at UG both on-script (e.g. 'This is a good consideration of the issues around using video' [ FO-J3]; 'Relevant and well-structured commentary on literature' [FO-J4].) and in overall comments:

> one of the most important issues is the lack of coherence … it would be helpful to think about the purpose of each paragraph and check whether you have a clear point to make b) you are making it clearly and c) it relates to what came before. [FO-J14]

When Jay compared her feedback on a high and low scoring script (FO-J11 'incoherent' vs FO-J12 'so coherent'), she was aware of a difference in her formulation of feedback according to the quality of the thinking in the script:

> This seems more – it seems more like an equal, talking to an equal here, do you know what I mean? And possibly that's because the quality is generally very good so I want to kind of acknowledge that and just sort of prompt her,

> push her to think in slightly different ways and expand her thinking rather than … give her building blocks … it's like the other one is 'actually you need to do these things before you can even get interesting' [FUI]

Her belief in helping students to structure their thoughts thus flourished in all conditions observed: written, oral, summative, and formative at all three levels. The way she formulated this feedback seemed to be influenced by the quality of the student's thinking.

### *ii) It's all about how it's received and how that person goes forward*

Feedback formulation was also affected by Jay's awareness of the possible emotional impact of her comments on her audience because she felt this would impact self-esteem and learning:

> I think how it's received and how that person takes that forward is really important. If you tell them some nice stuff then they're much more likely to listen to the bad stuff as well, they're much more likely to take it on-board, they're much more likely to feel confident that they can do some stuff and they can address it. [FUI]

She drew on personal experience of receiving feedback as a rider and a writer to support this point. Her struggle to formulate comments carefully was visible in feedback conversations across levels - for example at UG:

> Oh, her punctuation is [typing] You need to learn how to develop a – no that's too harsh so [typing]. Check your sentence structure and use of punctuation. This is part of conveying your meaning clearly and unambiguously. [FO-J6]

At PGT 'This is basically just muddled and incoherent' became visible to the student as 'I'm not clear what you are discussing in this paragraph … This needs more coherence' [FO-J11], and at EdD she commented 'I'm not going to put that I'm struggling to understand the purpose of it because that's too harsh' [FO-J16].

She expected to see a similar consideration of audience in her students, for example:

> I'm looking at it from a consumer point of view so I have very little – tolerance is not the right word – but very little patience with … lack of clarity in expression' [FO-J6].

When this expectation was not met, she struggled to maintain her positive formulation of comments. At one point, she explained:

> Every so often I'll put exclamation marks against comments but I just, it feels a bit rude. Is rude the right word? It feels like I'm going 'oh for God's sake, that's obvious', you know, it doesn't feel too kind. So I generally put them in and then delete them. [FO-J6]

However, when faced with poor academic practice, multiple exclamation marks appear at both UG and PGT (e.g. 'I've put loads of exclamation marks after that because I'm getting pissed off with it now' [FO-J7]; 'Not in end list!!!' [FO-J14]). This does not support her espoused belief in the background interview that she would be more forgiving of UG (e.g. 'I can be

horrible to you when I know you can actually do it but if I know you are just trying to find your way then that's when I give you a lot more support' [BI]). However, it does support her idea that 'my mood is gonna be affected by what piece of work I've read' [BI]. She explains more fully in the follow-up interview that she tried hard to find something positive in poor work because 'when I mark a bad script I don't feel very good … but if you can find something good to say about it then you leave it feeling a bit better as well' [FUI]. This was evidenced in the weakest PGT script when she stated 'got to give her something, some positive comment' [FO-J14]. As noted above in section 4.3.1 ii, Jay's praise spanned all levels, but it also became clear that Jay also thought carefully about how to phrase her positive comments, showing a nuance that might not be appreciated by the audience:

> if it's OK I tell them it's a useful overview or whatever, but here it's like no actually it's quite precise what she's said so it's a clear sense. I don't know whether these subtleties are kind of picked up on by the students, I doubt they are but it helps me to kind of think about the grade I suppose. [FO-J13]

This case highlighted the role of emotion in any feedback conversation. Core beliefs surfaced in the feedback focus irrespective of level, but formulation of feedback was impacted by emotional reaction to a core belief about the importance of thinking and was not necessarily aligned to her desire to behave differently at UG level. Although she had been thinking a lot about implications of differences in level, this was not always reflected in her practice despite her belief in the importance of audience awareness.

This chapter has highlighted the complex relationship between underlying beliefs and different elements of feedback practice in the individual cases. The next chapter will explore the common themes across cases, which were surfaced in large part through the quantification of data to identify dominant codes.

# 5 Cross-Case Analysis and Discussion

The previous chapter presented the findings from three cases of individual academic teachers about their engagement with the feedback process on student written work, drawing on Roy Bhaskar's concept of depth ontology (outlined in Section 3.1) to focus on the transition between the layers of *real* beliefs and *actual* practice - only parts of which became visible to students as part of their *empirical* feedback experience. This surfaced intrapersonal variation between beliefs and practice in different conditions. This chapter aims to synthesise what has been learnt across these three cases, analysing interpersonal variations in practice and their nuanced relationship with beliefs and situating these findings within the current literature on feedback and beliefs. Table 8 on the next page shows the range of espoused beliefs about teaching, learning, assessment and feedback in Higher Education that were articulated during the background interviews (see Appendix V for prompts) It should be noted that additional beliefs emerged during feedback observations – either privately in a think aloud or publicly in a feedback conversation with the student.

The widest divergence of beliefs concerned the fundamental role of higher education and this did reflect to a certain extent their disciplinary cultures: the pure scientist championed intellectual curiosity; the applied scientist aimed to prepare her students for their life and career; and the social scientist saw the wider need to develop a population of thinkers and so ensure important conversations happen. The least divergence was on the role of the student and the role of feedback. All three expected an active student who was engaged in decision-making, independent thinking and doing their own research. They all saw the role of feedback as improvement (in line with other much larger studies such as Henderson *et al.*, 2018), but each mentioned a different additional purpose: Colin highlighted the need to justify a grade; Anthea mentioned positive reinforcement and standards; and Jay stressed the importance of giving a rationale for what needed improvement. However, there was greater divergence on what needed to be improved: all three mentioned a focus on argument, reasoning and coherence to enable ease of reading; Colin and Anthea agreed on the need for a focus on precision (including spelling and grammar), but not on correcting scientific misunderstandings – which Colin claimed he did not do, but Anthea did; Jay was firmly against proofreading at micro-level and preferred to focus on conceptual development at paragraph or section level. While Colin and Jay believed in a selective feedback focus, Anthea was very open about her need to cover all aspects of performance, knowledge, understanding and skills and leave no error untouched. Both the selective and comprehensive approach, however, did vary slightly in practice according to task, mode and individual student as outlined in Chapter 4 and below in Sections 5.1.1-5.

There was a certain degree of alignment between the more general beliefs about teaching and learning and the more specific beliefs about assessment and feedback (cf. Phipps and Borg, 2009). Colin's beliefs in the role of the teacher as a friend and the importance of getting to know students as individuals were reflected in his perceived preference for informal direct

feedback, best delivered face-to-face and adapted to student expectations. Anthea's belief in the teacher as role model for responsible citizenship and developing a work ethic in students was in line with her belief in thorough feedback on all aspects of the work. Her belief in an open, explicit relationship with students and the importance of face-to-face communication was reflected in her espoused preference for oral feedback and feedback conversations at a programme level about feedback on all units. Jay's belief in independent thinking came through strongly in her perceived feedback focus, and her belief in the consideration of audience in relationships was reflected strongly in her concern for positive, specific, rationalised feedback formulation.

*Table 8 Beliefs and perceptions expressed during Background Interview [BI]*

| Theme | Colin: The Scientist | Anthea: The Applied Scientist | Jay: The Social Scientist |
|---|---|---|---|
| Role of HE | • developing intellectual curiosity<br>• not preparing for employment | • preparing for life and career | • developing a population of thinkers<br>• enabling important conversations |
| Role of teacher | • teaching students to think<br>• being a friend/helper<br>• being on their side<br>• knowing students as individuals<br>• educating and keeping them safe | • encouraging reading<br>• modelling citizenship<br>• imparting knowledge<br>• helping skills develop<br>• inspiring and enthusing<br>• helping students be their best | • developing citizenship<br>• changing the way students think<br>• developing researchers<br>• not making clones<br>• acting as a signpost |
| Role of student | • making educated decisions<br>• thinking like a scientist<br>• interpreting and communicating results | • developing work ethic<br>• obtaining transferable skills<br>• grasping all opportunities<br>• being proactive<br>• doing own research | • not being passive<br>• thinking independently<br>• asking critical questions<br>• learning how to learn<br>• not absorbing stuff<br>• doing own research |
| Teacher/ student relationship | • informal/personal<br>• two worlds collide | • open / explicit<br>• face to face important | • nurturing at UG<br>• audience awareness |
| Role of assessment | • making practical decisions<br>• showing understanding<br>• 20% understand 60% pass exams | • enabling progression of tasks<br>• developing strategies<br>• explaining science to different audiences | • structuring thoughts<br>• providing alternative to exams<br>• feeding into different units |

| | | | |
|---|---|---|---|
| Role of feedback | • helping do next one better<br>• explaining how arrived at mark<br>• highlighting what's good and bad | • guiding<br>• enabling improvement<br>• putting them at ease<br>• providing positive reinforcement<br>• indicating level of attainment | • enacting general good pedagogy<br>• highlighting what's good, what needs work, why<br>• moving them onto next step with thinking |
| Perception of own feedback process | • informal<br>• direct as know students personally<br>• adapt tone to student<br>• deal with difficulties face to face in tutorial<br>• most detailed not necessarily most useful<br>• timely | • consistency<br>• never leave errors<br>• one of more obsessive ones in school<br>• feedback conversations at programme level<br>• best when you can talk<br>• timely | • peer feedback<br>• specific<br>• developmental process<br>• feedforward<br>• it's about how I write it<br>• mood affected by work<br>• less soft when urgent<br>• try to be positive<br>• all about how it's received - interpretive |
| Perception of own feedback focus | • on task: faulty reasoning; spelling; grammar; not science misunderstandings<br>• on cover: transferable summary | • precision, omission<br>• misconceptions<br>• ease of reading<br>• performance, knowledge, understanding, skills | • not proofreading<br>• conceptual stuff<br>• argument, coherence<br>• paragraph, section level |

What was of particular interest in this study were the different conditions that allowed the teachers' underlying beliefs to surface or flourish, or alternatively caused the teachers to unconsciously lose sight of or even consciously compromise their beliefs in either the focus or the formulation of their feedback. Some of these differences in conditions were anticipated in the research design (discipline, mode, task, level), but others emerged from the data (individual student, interactional patterns, emotional response).

This chapter divides the feedback practice into focus and formulation following Basturkmen *et al.* (2014), and within each section compares the beliefs across cases, exploring the extent to which they were visible publicly to the students or privately to the researcher as distinguishing features of feedback practice under different conditions. The transactional side of the feedback conversation, its focus, is explored from the perspective of the anticipated differences of discipline, mode, task, level of study, but also considers the impact of the individual student, which emerged as noteworthy during the study. The interactional side of the feedback conversation, its formulation, is explored through two key themes that emerged from the data: dialogue and emotion. While much of the dialogue was visible to students, much of the emotion was only made visible to the researcher through the use of the think aloud method, which highlighted

interesting absences in the transition from feedback thoughts to feedback comments. Hence, the final section of this chapter, as well as discussing these absences, focuses on the contribution of the think aloud technique to this study and consideration for its future use.

It is anticipated that by comparing the impact of different underlying beliefs on these two different aspects of feedback practice under different conditions that this chapter will help further understanding of the puzzle that initially prompted this study – the apparent inconsistency in academic teachers' feedback on students' written work, which is well documented in research studies (Beaumont, O'Doherty and Shannon, 2011; Mulliner and Tucker, 2017) and student satisfaction surveys in Australia and the UK. The concluding chapter will consider the implications for practice of managers, academic teachers, students and researchers.

## 5.1 Focus of feedback

This section discusses the transactional side of the feedback conversation – that is, what information the academic teacher chose to focus on for teaching and learning – and how this was impacted by underlying beliefs under different conditions.

### 5.1.1 Disciplinary difference

Unlike other studies that have found a consistency in feedback focus across disciplines (Bitchener, Basturkmen and East, 2010; Basturkmen, East and Bitchener, 2014) these three cases displayed some interesting differences, which appeared to be linked to the academic teachers' different beliefs in the role of teaching, learning and assessment in Higher Education in general, and of feedback in particular (van Heerden, Clarence and Bharuthram, 2017; Esterhazy, 2018; Norton, Floyd and Norton, 2019) – and how strongly these beliefs were held (Phipps and Borg, 2009). Although this study does not claim that one case is representative of a discipline, it is interesting to note the difference in espoused beliefs between the scientist (Colin), who viewed the role of higher education as developing intellectual curiosity; the applied scientist (Anthea), who saw it as about preparing students for life and work; and the social scientist (Jay), who saw it as about creating a thinking society where important conversations happen and people are questioning what is going on. However, there was also reported evidence of differences in beliefs and practice within disciplines.

The pure and applied scientists (Colin and Anthea) shared the belief that communicating science is an important skill for scientists to develop, alongside understanding it (Sections 4.1.3 and 4.2.3). However, this belief was enacted slightly differently in their practices, perhaps depending on what was believed to be important for communication. Both focused heavily on linguistic accuracy and precision in the written feedback comments visible to students, though it was content that figured most strongly in their thoughts (Sections 4.1.4 and 4.2.1). Both turned to the visual summaries of information first, but for Anthea 'content and accuracy and figures and diagrams and labelling' [BI] were at the heart of science. Her belief in the importance of visual summaries for communicating information was so strongly held that it was enacted consistently across modes, tasks, levels,

and students. However, she recounted differences within her Faculty, and between institutions, in their opinion of the importance of visuals in student writing. She also highlighted disagreements amongst colleagues around textual organisation, which for her was another important element of communication, since coherence and cohesion facilitated the job of the reader. In contrast, Colin's feedback only included a focus on organisation with one student (See Table 3 in Section 4.1.4i).

In the case of the social scientist (Jay), who had moved from psychology into education, the focus on organisation was sustained across modes, tasks and levels. In this case, however, organisation was not so much about a belief in communication as about her belief in the purpose of feedback as providing information to improve the structure of thoughts. Although one task did contain a visual representation of a theory, this was not a focus for her feedback, and only attracted attention in the think aloud when there was a formatting issue (caused by the teacher's use of word comment function for feedback). Likewise, her comparative lack of focus on language was consistent across tasks and levels, with language only surfacing as an issue when it interfered with clarity of thought, and weaknesses in linguistic expression being more easily overlooked when the quality of the thinking was good. This was aligned with her belief in the role of the academic teacher as dealing with conceptual rather than linguistic issues. However, this belief could not withstand certain emotional responses to individual student work (see Section 4.3.2iii), when language did become a focus for feedback. Similarly, the use of literature in line with academic conventions caused a breach in Jay's 'no proofreading' belief. The focus on academic conventions for referencing was one area that was consistent in practice across all cases, but not explicitly articulated as a belief in the purpose of feedback.

Although academic disciplines may exert considerable influence on what is seen as legitimate knowledge and ways of knowing (Maton, 2014) and therefore affect the focus of feedback (van Heerden, Clarence and Bharuthram, 2017), the present study highlights the complexity of this relationship since it has shown that both within and across disciplines similar beliefs may be enacted differently, and similar practices across disciplines may be based on different underlying beliefs. This is in line with current feedback literature looking at the ecology of the learning context (e.g. Dunworth and Sanchez, 2018; Henderson *et al.*, 2018, 2019), which as well as disciplinary differences considers individual differences in the academic teacher and other contextual factors, such as those outlined in Sections 5.1.2 – 5.1.5 below.

### 5.1.2 Mode

The preference among teachers and students for oral feedback is evidenced here (see Sections 4.1.1; 4.2.1; 4.2.3; 4.3.1;) as in the literature (Black and McCormick, 2010; Blair and McGinty, 2013; Mulliner and Tucker, 2017; Dawson *et al.*, 2019; Steen-Utheim and Hopfenbeck, 2019). Although the present study clearly shows that not all oral feedback events are equal at the *empirical* level of student experience (see Sections 4.1.4; 4.2.4; 5.1.5), it does suggest that an oral event may provide the necessary conditions for

certain beliefs to flourish. Where feedback was observed in both written and oral mode (in Anthea's case on the same task with the same students), there was a mode-dependent shift in feedback focus. The direction of the shift in focus appeared to be determined by different core beliefs about Higher Education. Both Anthea and Colin displayed a visible focus on language in their written feedback, but language took less precedence in their oral feedback. For Anthea, the conditions of a face-to-face oral meeting allowed her beliefs in the importance of transferable life skills and individual difference to flourish. She opened and closed with comments on well-being, stress, and time management, and displayed a concern for individual and personal issues throughout. This focus was not evident in her on-script comments and only appeared rarely in written summary comments. For Colin, there was also a greater focus on transferable skills in oral feedback, but these were much more related to doing chemistry than to professional or personal life, and were thus aligned to his belief in teaching students to think like a scientist. The focus on thinking in his oral feedback was greater both in terms of frequency of mention and time spent modelling or eliciting disciplinary thinking behaviours.

Thus, the best mode of delivery for a belief to flourish may depend on the nature of the belief. For example, Colin held two beliefs quite strongly: his belief in the need to improve poor quality writing flourished in the conditions of written feedback mode whereas his belief in the need to develop scientific thinking flourished in oral feedback mode. He was also much more positive in his oral interactions in line with his belief in telling students what they had done well. This is in line with the more socio-constructivist view of beliefs as dynamic, situated and emergent (e.g. Skott, 2015) and suggests mode of feedback is a key element of the context to be considered in explaining any apparent incongruence between beliefs and practice. This finding supports calls for a diversity of modes in any feedback design (Henderson *et al.*, 2019).

### 5.1.3 Task

As outlined in Section 2.5, the academic teacher's role in the feedback process is now conceived of in much of the literature as a designer of feedback opportunities, rather than a giver of feedback comments (Boud and Molloy, 2013). As such, the nature of the tasks employed takes on particular significance. Feedback on a variety of different formative and summative written assessment tasks was observed and it was clear to all three academic teachers that the different tasks had different teaching and learning purposes and therefore provided different opportunities for productive feedback encounters (Esterhazy, 2018).

The distinctly different feedback focus according to task was clearest in the case of Anthea, where her belief in transferable skills, for example, did surface in the summative essay (which was mainly focused on omissions and errors in content), but this belief flourished in the first draft of the project introduction and the formative exam practice essay. Anthea explained that the exam practice essay aimed to develop exam and revision strategies as well as encouraging students to integrate the content from a series of different lectures and background reading. Anthea remained committed to

the focus on her purpose of strategy development, even in the face of student attempts to change the focus to critical thinking. This is evidence of a strongly-held conscious belief (Skott, 2015) aligned with clarity of purpose in task and feedback design that is not common in staff (Dawson *et al.*, 2019).

The case of Colin shows that strongly held beliefs may distort the feedback focus designed into a task, and that newly acquired beliefs may obscure the original purpose of a task. Colin explained that the purpose of the short report task was for the student to convince him that they had done the experiment and made it work, while the long lab report was more like an essay in that they had to set a context, explain the chemistry and draw conclusions that demonstrated understanding (See Section 4.1.3). This clearly articulated distinction in purpose of the task, however, was not always visible in his feedback focus. His intention was to use the coversheet for transferable feedback and put task specific feedback on the script. A strongly held and explicitly articulated general belief in the role of assessment for demonstrating understanding of scientific content surfaced when Colin rewarded understanding in both tasks. However, he did not address all cases of misunderstanding of the science on the scripts in a task that had been explicitly designed for this purpose due to his newly acquired specific belief (from a recent course) in the need for transferability of all feedback information (Section 4.1.2) in an assessment *for* learning model (Black and McCormick, 2010). This seems to support the findings of Phipps and Borg (2009) that a peripheral belief that has been embraced theoretically may not be held with the same level of conviction nor have the same influence on practice as a core belief that has stood the test of time and personal experience. There was an unresolved tension between Colin's strongly held general belief in the purpose of assessment and his newly acquired specific belief in the purpose of feedback that might lead to dissatisfaction among students if they saw a disconnect between the explicit purpose of a task and the nature of the feedback. Colin's use of an interactive coversheet that, among other things, asked students to request a focus for feedback could counterbalance any student dissatisfaction if used consistently.

The case of Jay highlights the fact that students are often unclear about the specific purpose of a task (Dawson *et al.*, 2019) and need very task-specific guidance on teacher expectations as part of the feedback design process (Hattie and Timperley, 2007). Jay was frustrated by a confusion among several of her PGT students between the purpose of the task she was marking which called for application and a similar report writing task on another unit that was more about display of knowledge and understanding. This prompted very direct feedback on the lack of application of knowledge as her frustration grew and she gradually came to understand the source of the confusion she was witnessing. While the overall picture of how the task demand differed between unit was clear to the course designers, this was not clear to the students who simply transferred the expectation of one unit to the next (Lea and Street, 1998). The feedback comments stage was too late to make this explicit.

Thus, it seems that although the different purpose of tasks might be clear to the teacher, in practice not all students shared this understanding and so did not perform as expected on the task, or expected a different feedback focus from the one offered in line with the task's purpose. This supports findings in the literature that feedback needs to be aligned to task purpose to be effective (Carless, 2006; Shute, 2008; Price *et al.*, 2010), and can be both orientational or transformational as needed (Orsmond *et al.*, 2013; Dunworth and Sanchez, 2016). Where a belief was strongly held and aligned to the task purpose, the feedback focus remained constant. However, strongly held core beliefs can surface in feedback irrespective of task purpose and so distort the alignment. Where there was a misalignment between newly-acquired beliefs and the stated purpose of a task, a context was created where this belief, no matter how frequently espoused, could not flourish in practice (Lee, 2009, 2010). This complex relationship between underlying beliefs, task purpose and feedback focus suggests a need for task-specific rather than generic criteria that clearly highlight the particular purpose of a task and teacher expectations in the feed-up stage of the process (Hattie and Timperley, 2007). This would aid the teacher in a sustained feedback focus in line with the specified purpose of a task and their underlying beliefs. Not all teachers have the autonomy to do this.

### 5.1.4 Level of study

The inclusion of different levels of study in the sample under analysis also allowed for some insights into the relative strength of different beliefs, particularly in the case of Jay. Colin and Anthea taught only UG students at the time of data collection. In Colin's case, there was no difference in level of study as feedback to students from the same cohort was observed on two different tasks in two different modes. In Anthea's case, feedback was observed on second-year summative essays and third-year exam practice essays and projects. On both second and third year tasks there was the same comprehensive approach to linguistic and content errors, the same focus on the importance of visual summaries of information and on transferability of feedback from the current to future tasks (Section 4.2.1) in line with her beliefs in consistency, communication and student responsibility (Section 4.2.3). It was Jay's case that included the greatest range of levels of study with feedback observations at EdD, PGT and UG – with the latter being a new level of study for Jay and therefore a major focus for speculation in the background interview. Although Jay wrongly predicted a change in her formulation of feedback to accommodate the needs of a UG audience (Section 4.3.3/4), she was correct to predict no change in the focus of her feedback due to her strongly held belief in the importance of developing students' ability to structure their thinking. Indeed, there is no evidence of any difference in focus dependent on level in the data, with a focus on thinking spanning all levels (Section 4.3.4i). Thus, the present study extends the understanding of the impact of strongly held beliefs on practice (Buehl and Beck, 2015) as they are shown to be consistent across levels of study.

### 5.1.5 Individual

The need for consideration of individual difference in feedback has been discussed and explored (Shute, 2008; Evans, 2013; Winstone and Nash, 2016). This study has shown that knowledge (even assumed knowledge) of

the individual student not only has an effect on the interactional component of the communicative event but also on the transactional component (Esterhazy and Damşa, 2019) (Section 5.2).

While Jay's core belief in the importance of feedback for thinking did not change according to the individual student she was working with, she did acknowledge a compromise in her 'no proofreading' belief in the follow-up interview and admitted a divergence in focus on language depending on the known or deduced linguistic and educational background of the student (Section 4.3.4). She demonstrated much greater forgiveness of linguistic error with those whom she assumed or knew to be international students, rarely noting sentence level errors on the scripts but recommending reading through work with a native English speaker as a strategy in the summary feedback. With her EdD student, she pointed out that their initial focus on ideas then needed to shift to language. However, she was irritated by grammar for those she perceived to be native English speakers and did point out the errors on the script. Errors with precise use of technical vocabulary were highlighted irrespective of individual background. This could be further support for the multidimensional view of beliefs (Buehl and Beck, 2015) and the tension between peripheral and core beliefs (Phipps and Borg, 2009). It could be that her belief in audience awareness was stronger than her belief in not focusing on language. Alternatively, it could be that intense emotional reaction could compromise beliefs (see also section 5.2.2).

All three expressed a belief in the need for students to take an active role in their learning, and this can result in the individual student taking control of the feedback focus – in either an unplanned or planned way. Although this was easier in more open formative independent research tasks such as Anthea's final year UG project and Jay's EdD thesis (where there is evidence of students determining the focus of both written and oral feedback), there was also evidence of UG students taking control of the focus in Colin's instant oral feedback on short lab reports and attempting to do so in Anthea's oral feedback on second year formative exam practice essays. For Anthea, there was a tension here between her beliefs in student responsibility and individual difference and her beliefs in the purpose of the task and consistency (Phipps and Borg, 2009). In Colin's case, the tension was between his plans for students to request a feedback focus using an interactive coversheet (Bloxham and Campbell, 2010), his enthusiastic engagement with a recently acquired belief in the need for a focus on transferability in all feedback comments, and his strongly held belief in the purpose of assessment (Section 5.1.3) (Buehl and Beck, 2015).

It may be worth negotiating the purpose of a task as perceived by students and teacher as part of the meta-dialogue around feedback (Carless and Boud, 2018), and even allowing student choice in the type of feedback required for their perceived purpose – whether that be corrective feedback oriented to misunderstandings in the current task, transferable feedback aimed at similar future tasks, transformational feedback aimed at developing self-regulated learning or even appreciative feedback aimed at boosting self-efficacy (cf FT, FP, FR, FS in Hattie and Timperley, 2007).

Different students may be ready for different types of feedback at different stages in their university degree.

At the other end of the spectrum of student behaviour, all three academic teachers saw some individuals as the barrier to their own learning if they failed to collect feedback, turn up for tutorials or respond to feedback. This individual behaviour is explored in the following section on formulation of feedback.

## 5.2 Formulation of feedback

According to Halliday, language has 'stratificational complexity' (2003, p. 5). We are constantly seeking to harmonise choices that we make to communicate ideational, textual and interpersonal meanings, which are dependent on certain situational variables: field (what), mode (how) and tenor (who) (Halliday and Matthiessen, 2013). The previous section considered the ideational meanings communicated through a choice of focus for the feedback comments; this section will explore the way feedback is formulated to create textual (Section 5.2.1) and interpersonal (Section 5.2.2) meanings. Hyland and Hyland (2006, p. 206) see feedback as a 'pedagogical genre' with a 'heavy informational load', but their chapter focuses on the interpersonal aspect of feedback, which they see as key to creating the conditions for learning to happen. A successful feedback conversation is not merely transactional (about teaching and learning), but also interactional (about establishing relationships between a teacher and a learner). In Yang & Carless' (2013) conceptual paper, the interactional organisation and management of feedback and the social and interpersonal negotiation form the foundations of the feedback triangle model that then allows the transactional content focus to be achieved. The present study has highlighted how much care must be taken to balance these foundations as well as the possible impact of the underlying layer of belief system on the stability of the triangle. In critical realist research (Fletcher, 2017), the stratified reality has been represented visually as an iceberg rather than a triangle, with so much going on in the invisible space below the surface. The present study has enabled more of the iceberg to become visible thanks to the think aloud protocol, which has revealed the considerable care taken by all teachers in the formulation of their feedback.

Basturkmen *et al*.'s (2014) cross disciplinary study of supervisor comments on doctoral theses found that formulation varied according to focus, with comments on language and academic conventions typically providing a solution by either informing or correcting, and comments on content and organisation framed more as solution-seeking, using questions and suggestions. The present study found wider variation in formulation, both across and within cases, even on the same focus, which can be linked to the complex relationship between underlying beliefs and contextual conditions.

For Colin, formulation varied according to his detailed knowledge of the individual student in line with his belief in the need for a friendly relationship with students to facilitate learning. This is in line with Bakhtin's dialogic principle that 'the recipients (or rather the idea of them) are present already when the sentence is formulated' (Steen-Utheim and Hopfenbeck, 2019, p.

21). Although he was not consciously aware of the care he took in formulating his feedback, this was revealed in the think aloud recordings. In one particular instance (see Section 4.1.4iii) the transactional goal of the written feedback (improving the student's use of literature) risked being obscured by the interpersonal considerations which caused him to use a suggestion and hedging ('consider ... maybe') when use of literature was clearly a requirement in the criteria, a concern expressed frequently in his think aloud data, and communicated much more directly to other students.

On this same transactional focus (use of literature), Jay, who was generally very conscious of the effect the formulation of her message might have on her audience, lost any interpersonal mitigation to her message in an emotional response to the 'hideous' [FO-J8] referencing, which resulted in clear directives in all except one of the 16 texts analysed across all levels (See Section 4.3.4ii). The think aloud offered insight as to why she chose directive rather than corrective formulation ('I'm not going to tell them what APA style is because they've bloody done it in class. I'm not going to say you should not use the title of things you should put authors. They can find out about APA style' [FO-J5]; or 'Check correct APA format for reference list. I'm not going to tell her exactly. I'm not going to correct every single reference' [FO-J6]). This was in line with her belief in developing independence among her students. In the background interview, Jay showed awareness of her emotional response to texts but believed this varied with urgency – more direct when students were nearer completion, and more tolerant at UG. However, this differentiation was not supported by the data, as shown in Sections 4.3.3 and 4.3.4.

In addition to the variation in formulation in line with emotional response to a text, Jay also demonstrated that in practice the formulation of her message varied according to the quality of the text she was reading. When talking through the differences in feedback formulation between a high and low-scoring text in the follow-up interview, Jay noticed that she adopted a more tentative tone (e.g 'whereas the other one I said I disagree, I said I would dispute this. That's interesting' [FUI]) and used 'much bigger, more conceptual questions' [FUI] when it seemed to be 'more like an equal talking to an equal' [FUI]. Colin also commented on the opportunity for 'a proper grown up scientific argument' [BI] with 'one of the top students on the class' [BI], and Anthea appreciated having 'quite a conversation'[FO-A21] with her higher scoring final year student.

For Anthea, the formulation of the message varied according to the location of the feedback. As her comments were handwritten, she could only write short on-script comments in the margin (cf Halliday's 'little texts' that have to achieve a lot cited in Mutch, 2003) but was able to formulate comments more fully in the overall comments on the coversheet (as suspected in Basturkmen *et al.,* 2014) in line with her belief for explicit communication.

Thus, it can be seen that formulation not only varies with focus, but also with knowledge of the recipient, emotional reaction to frustrations in the text and to the quality of the text. The choices of formulation may be linked to a range of underlying beliefs, some of which may be constrained to a greater

or lesser extent by emotions or practicalities. The findings support the assertion that quality feedback requires a delicate balance between the transactional and interactional consideration so that the message is not lost (Hyland and Hyland, 2006). The next two sections break the interactional aspect into managing dialogue (5.2.1) and managing emotion (5.2.2), as these two codes emerged as demi-regularities from the data and generated interesting follow-up conversations which linked observed practice with underlying beliefs. This division reflects Halliday's textual and interpersonal meanings considering the 'how' and the 'who'. It is also in line with the two bottom corners of Yang and Carless' (2003) feedback triangle.

### 5.2.1 Managing dialogue

The concept of dialogic feedback has developed over the last decade (Bloxham and Campbell, 2010; Nicol, 2010; Carless *et al.*, 2011; Yang and Carless, 2013; Ajjawi and Boud, 2017, 2018) and has come to form part of the new paradigm of learning-focused feedback practices which call for greater pro-active student involvement in an iterative feedback process designed by the educator (e.g. Winstone and Boud, 2019). In their recent publication, Winstone and Carless (2020) problematise the term dialogue as it is often taken to imply a face-to-face oral event. They suggest that the term interaction might be more appropriate. In the present study, although dialogue is restricted to student-teacher interaction, it is considered in written and oral modes, as well as a blend of the two – where the student script or written feedback comments become actors in the feedback conversation (Ajjawi & Boud, 2017). There is also plentiful evidence of ongoing interaction.

All the cases in this study contain elements of a dialogic approach, including interactive coversheets (e.g. Bloxham & Campbell, 2010; Nicol, 2010), which prompted both external and internal dialogue to different degrees. The level of engagement with the coversheet, both intended and enacted, varied within and across cases, for teacher as well as student. Unlike Colin and Anthea, who were involved in the design of the coversheet they used, Jay engaged with two different coversheets designed by other colleagues in her School. The new undergraduate coversheet introduced an element of student interaction that had not been present on the established post-graduate level form, perhaps evidencing an evolution in understanding of feedback within the School. Undergraduates were given the option of writing in a box to request a specific focus for their feedback. None of the seven students in the study wrote anything in this box. Jay did not seek out any comments during her think aloud, or verbalise any thoughts on the fact that there were none. This is surprising given her belief in students taking an active role in their learning. This may be due to the fact that these UG essays were marked anonymously and did not form part of an ongoing feedback conversation. In her recorded thoughts on the postgraduate task, she did express frustration that some students had chosen not to attend an earlier oral face-to-face meeting for formative feedback on their outline that would have informed their written proposal. Although the PG task design offered the opportunity for sustained dialogue with her and transferable feedback, not all students took advantage of this. Another possibility is that the students, and perhaps Jay herself, were not prepared for the use of the

interactive element of the coversheet. Bloxham and Campbell (2010, p. 299) also report a limited ability of first year undergraduates to 'initiate meaningful dialogue with their tutors' on interactive cover sheets and suggest structured peer discussions to help them generate such questions.

In contrast, Colin's coversheet, of his own design, contained a dialogue box that included three key elements of sustainable new paradigm feedback: use of past feedback in the current task, request for feedback focus, and self-evaluation (in the form of the anticipated grade). This aligned with his belief (expressed by all three actors) in the purpose of feedback for ongoing improvement. All except one of Colin's third year undergraduate students completed this dialogue box in full and he expressed frustration when one student had not attached the coversheet. This enhanced level of student engagement might be due to the iterative task design, which allowed for three submissions of each type of report in one semester. The students were encouraged not to see feedback as an isolated event but as an opportunity for a sustained dialogue with a known teacher. It was clearly possible for them to transfer feedback from one task to the next, which had identical expectations, only different content. As Colin designed the coversheet and interacted regularly with the students, we might also assume that he explained the coversheet to them in line with his newly acquired beliefs, although there is no evidence of this in the data. Although students were provided with the conditions to develop key features of student feedback literacy: appreciating feedback, making judgements, managing affect and taking action (Carless and Boud, 2018), Colin did not appear to use the dialogue box consistently himself, responding to different elements on different scripts. While he responded to either the anticipated grade or the requested feedback focus (either in the summary comments or in a margin comment), he never responded (neither in his thoughts nor his visible comments) to the student information about what feedback they had transferred to the current work. This resulted in an unclosed loop in that aspect of the feedback conversation. This inconsistent use may be due to the fact that this was a new practice based on a newly acquired belief from recent reading and CPD sessions that had not yet established itself quite as strongly as other beliefs in his practice, as discussed above in Section 5.1.3 (Buehl and Beck, 2015). There may be a risk with not closing the feedback loop that will mean that students may make less use of the dialogue box in future assignments (Angelo and Cross, 1993).

Winstone and Carless (2020) argue for a programme level approach so that everyone can get used to the interactive coversheet. I would argue for a wider community of practice approach, perhaps at school, department or even Faculty level, with the possibility of specific adaptations to particular tasks. Anthea had the opportunity to influence feedback pro-formas at school and faculty level in line with her belief in the need for consistency – but this was not a quick and easy process. She introduced feedback sheets for some tasks (e.g. second year summative essay), but not for all (e.g. third-year formative take-home exam-practice essay - where the criteria sheet was used). The second-year feedback sheets clearly evidenced a belief in feedforward, with opportunities for both the internal and external dialogue necessary for self-regulation (Nicol and Macfarlane-Dick, 2006). There were

calls to action on the feedback sheets for the student to 'use the back of the sheet to reflect on your marks and feedback', and to use the feedback 'as a guide to improve your performance in essay writing' and 'inform discussions with your personal tutor about your academic development'. Although there was not a direct instruction for the students to engage interactively with the coversheet before submission, the sheets were available to students and the criteria were expressed as a list of questions that could be used as part of an internal dialogue by the student for self-evaluation (e.g. Content: Does the essay cover the important points covered in the lectures? Is extra material from additional reading included?). In fact, this was how Anthea herself used them during the marking process and students saw evidence of this (See Section 4.2.1). Anthea expressed regret that she was not able to follow up these second-year essays with face-to-face oral dialogue since she believed that oral interaction was better received by students.

For Anthea, the opportunity for oral feedback meetings was key to her belief in communication and student engagement. She used these opportunities for relationship building, sharing personal anecdotes about her life and her family, and demonstrating great awareness of her learners as individuals. This is in line with the Rogerian empathetic congruent coaching relationship (Cowan, 2015) and it is recognised in the feedback literature that students are more likely to be active in situations of trust (e.g. Hyland and Hyland, 2006). In response, many discussed personal issues with her and gave positive feedback on accessibility of the staff in the course evaluations. In the case of Anthea's third-year projects, where she believed 'certainly … there should be a dialogue' [FUI], there was evidence of opportunities for sustained conversation (both written and oral) in the task design, but the different level of student engagement with this opportunity at all stages resulted in different quality of feedback conversations, and ultimately in different quality final products.

There were clear examples of 'cue-conscious', 'cue-seekers' and 'cue-deaf' students in this study (Yang and Carless, 2013) that meant that the potential congruence between underlying beliefs and feedback plans was challenged (Ashton, 2015) during the feedback process. The opening move in the feedback conversation was a project talk in week 5, worth 5% of the final grade, where students presented their proposal and received written feedback on presentation and content. The 'points to commend' related to the presentation and 'points to improve' related to content, which was clearly transferable to the next part of the task. The next move in the ongoing conversation was the submission of an ungraded draft introduction. One student submitted a very short draft for feedback with no indication of the planned structure of the remaining text. This move constrained Anthea's possibilities for response. However, she followed the same moves in her feedback conversation as with other students and completed a feedback pro-forma with clear directions and suggestions for improvements to the draft and the remainder of the work in the areas of content, organisation, referencing, and presentation. This feedback pro-forma took an active part in the face-to-face conversation (as did the assignment itself), with Anthea referring to it and ticking off some of her own questions as the conversation

progressed. The student also took notes on the assignment. The cue-deaf student opened the face-to face episode in the feedback conversation with the comment 'Definitely needs a lot of work, so I'm prepared for that' [FO-A22] and made encouraging moves throughout that suggested engagement with the feedback conversation (e.g. 'that's a really good point and I guess that's something I'll have to consider'; 'I can picture how to do that'; ' I want to put that in' [FO-A22]. However, the final draft showed limited uptake (e.g. changes to formatting) and the final assessment report mentions the same issues that were raised in this formative feedback conversation.

At the other extreme was the cue-seeking student with a 'dramatic difference' [FUI] between first draft and final submission who was actively engaged in the feedback conversation throughout. This student pro-actively sought feedback by emailing concerns when submitting her draft introduction electronically and adding post-it notes with questions at key points on the paper copy. Anthea found these useful ('because I knew then what she was unsure about and I could make sure I read it carefully to see what she was getting at' [FUI]). Anthea responded to the student's concerns both on the coversheet and in the face-to-face meeting. She talked excitedly to the student in the face-to-face episode about the blended feedback conversation they were engaged in ('we like to think of it as a conversation but actually it was even a conversation while I was reading it' [FO-A21]), as she was perhaps adjusting her belief that face-to-face oral feedback was best suited to her underlying belief in communication, and moving more in line with emerging more open definitions of feedback dialogue in the literature (Boud and Molloy, 2013; Ajjawi and Boud, 2018).

This particular cue-seeking student also took an active part in maintaining the conversation after the oral face-to-face episode by commenting on online comments, which Anthea recognised as part of the dialogue ('because she'll come back and query whether the changes she'd made were actually appropriate and did they reflect what I was actually getting at' [FUI]). All three actors identified themselves on the cover sheets even where the student was anonymous, in line with their beliefs in an open student-teacher relationship. However, this was only one of two recorded incidents of a student actively following up the feedback – both where there was an established relationship with the teacher. The second was Jay's EdD student who engaged in considerable dialogue both electronically and orally to seek clarification on Jay's feedback and check he was taking appropriate action. This supports other findings in the feedback literature that suggest students do not feel confident enough to seek out feedback from academic teachers (Blair and McGinty, 2013; Xu, 2017; Carless, 2019b). Both Jay and Anthea had strong beliefs in the importance of feedback conversations, but these beliefs could only flourish in the company of a cue-seeking, cue-aware student who was willing and able to take an active part in the 'feedback tango' (Bing-You, *et al.*, 2018) – which calls for 'a dynamic partnership between two individuals' (p. 657).

All three actors expressed a belief in the supremacy of oral feedback where possible, but again their practices differed slightly (Buehl and Beck, 2015). Whereas Jay and Anthea engaged their students in complementary oral

face-to-face feedback conversation either before or after the written feedback, Colin engaged directly in 15-minute 'instant' oral feedback conversations with his short lab reports. He believed that students welcomed this as the only chance they had to discuss their work. A similar approach to feedback is described by Winstone & Carless (2020, p. 102) in the case of Chalmers, Mowat & Chapman (2018), where first year biological science students could choose instant or traditional written feedback on a 1,000-word essay. Only 58% chose the instant option (49 out of 84 students). Those who engaged with the instant feedback are reported to have found it more valuable and satisfying. I would be interested in why 42% did not choose this option. While Winstone and Carless (2020, p. 102) suggest that this case 'shows how a modest design amendment can bring increased dialogue within feedback practices', I would argue that it may be the ability to choose the feedback mode that is key, rather than the instant oral feedback option itself. Both Colin's and Anthea's cases show that the oral feedback situation did not suit every student. Furthermore, I would agree with Steen-Utheim and Hopfenbeck (2019) that it is the quality of the interaction that is of central importance, not the simple opportunity for an oral feedback conversation. The current study shows that a lot depends on the role taken by the student concerned – irrespective of the teacher beliefs or practice. A simple conversation analysis of turn taking, topic shift, length and purpose of turns showed across cases that while some students initiated topics, asked questions for clarification, and checked understanding, others simply responded with very short utterances (Section 4.1.4) or said what was expected but did not follow up on their promises (Section 4.2.4). It may depend on a student's personality, which may or may not be susceptible to short training sessions on how to engage more effectively in the oral feedback conversation. It may be that a written feedback conversation is less threatening and therefore more valuable for some students. Whether they choose to engage in a written or oral dialogue, I would agree with Steen-Utheim and Wittek's (2017) suggestion that students need to develop strategies for maintaining and extending dialogue, but would add that this is also an important skill for teachers to develop – particularly where there is an underlying belief in meeting individual student needs. For some, such as Anthea, there may also be a tension between different belief clusters around consistency of student experience on the one hand and personalisation on the other.

The current study also shows that interaction patterns may be task-dependent. In Anthea's case, there was a notable difference in interaction pattern linked to the purpose of the task. In the project, the students took longer turns whereas in the exam practice essay the teacher dominated the oral conversation and, contrary to her belief that the group feedback mode was better for the students as they could learn from each other, this condition caused her to dominate the exchange even more and perform mini-lectures rather than engage in conversation. Each student spoke less. Some feedback situations may be designed as mini lectures. While some literature recommends care to avoid teacher dominance (Blair and McGinty, 2013; Steen-Utheim and Wittek, 2017; Esterhazy and Damşa, 2019; Winstone and Carless, 2020), it may be that a teaching style is needed where there are content issues (Hattie and Timperley, 2007) and resolving these is

the purpose of the task.

These examples show how dialogue is not restricted to the face-to-face oral feedback conversation, which may in fact represent a temporary or superficial level of student engagement, but instead should actively involve both student and teacher in a sustained learning and teaching conversation, or 'feedback spiral' (Carless, 2019a). Only then can the shared belief in the purpose of feedback for improvement flourish.

This section discussed the interactional structure of the feedback conversation (including written, oral, and blended) between teacher and student, and how the individual student's engagement in turn-taking and the purpose of the student turns can determine the quality of the learning opportunity that is co-constructed through the interaction. If teachers believe in an active student role in the feedback dialogue, as these did, they need to create the conditions where all students feel able to contribute and so enable that belief to flourish. This section has shown how challenging that can be, even for teachers who are considerably invested in a dialogic feedback process. The following section then considers the additional challenge of the relational or interpersonal aspect of the feedback conversation.

### 5.2.2 Managing emotion

In Evans' (2013) extended literature review only 3% of texts had affect as the central theme. Affect and the interpersonal dimension has become more prominent in research and conceptual models (Yang and Carless, 2013; Dunworth and Sanchez, 2016) as feedback has become established as dialogic (Nicol, 2010), teacher feedback literacy has taken on a socio-affective dimension (Xu and Carless, 2016), and emotions are increasingly seen as an inseparable part of learning (Voerman *et al.*, 2014). However, much of the research literature has considered the affective impact on the learner that may determine their response to teacher feedback (e.g. Boud and Falchikov, 2007; Wingate, 2010; Price, Handley and Millar, 2011; Dowden *et al.*, 2013; Voerman *et al.*, 2014; Pitt and Norton, 2017), rather than the affective response of the tutor to student work (Tuck, 2012b; Voerman *et al.*, 2014) and how that might affect the initial formulation of feedback.

*Table 9 Espoused emotions emerging from structured interviews*

| Emotions | Colin | Anthea | Jay |
|---|---|---|---|
| Frustrations | • quality of writing<br>• quality of scientific thinking<br>• obsession with marks | • missed opportunities<br>• not noticing when reading<br>• not following instructions | • emotionally involved: frustrated for them<br>• exasperated at them not trying/not responding<br>• language of native speakers |
| Enjoyment | • discussion with bright students | • fun learning from students | • shares positive emotions<br>• proud, excited, interested |

The use of the think aloud technique in the present study has provided some fresh insight into the academic teacher's 'rollercoaster of experience ranging from ... delight to ... desperation' (English, 2011, p. 43), and text analysis has shown when and how they manage their emotions in the feedback that becomes visible to the writer. All three academic teachers expressed frustrations and enjoyment in their interviews, as summarised in Table 9, many of which were observed in feedback practices.

Emotion was particularly noticeable in the case of Jay, whose think aloud demonstrated a high level of emotional involvement with the texts (both positive and negative) and whose formulation of feedback varied, despite her attempts to manage it, according to emotional response to the quality of the thinking in the text (including the use of literature to support thinking) (See Section 4.3.2). This reflected her core belief in the role of assessment and Higher Education in general to develop thinking. As a psychologist by background, whose research was in the area of relationships, Jay held some strong beliefs concerning emotions and was highly aware both of the effect on her mood of the work she was reading and of the possible effect of her comments on the self-esteem and learning of her students. Although Jay anticipated differences in the way she would formulate her feedback in line with her belief in audience awareness, this was not always the case. On occasion an emotional mist caused her to lose sight of her belief and allowed frustration to surface in the feedback. However, she was also very aware that her espoused beliefs might not always be enacted in practice, stating 'I hate myself for doing that lazy marking' [BI] (when she was less careful in filtering her use of language) but laying the blame on the external constraints of the situation as 'there's not enough hours in the day' [BI]. Overall, however, her practice was aligned with her beliefs. For example, of the 92 positive thoughts only four of them were not visible to students, and she went out of her way to find positives even on the weakest work. Praise was the second most frequent function of her feedback comments (17% EdD, 20% PGT and 19% UG), but she was again very aware of the need to be specific with her praise so that students not only knew what was good, but why it was good (e.g. 'Good you have thought about the structure of your schedule' [FO-J9]). Her enjoyment in reading good work is evident in both on-script and summary comments (e.g. 'You are really getting to grips with activity theory. Well done! I'm enjoying this!' on the script and in the summary 'Your use of literature to inform your thinking is of extremely high quality which made this assignment a pleasure to read' [FO-J12]). She also expressed enjoyment at the content of some work in the think aloud (e.g. This is a really funny example. […] One member of the circle said 'just bite them' in regard to a boy wanting to join in. Nice!' [FO-J1]).

This contrasts with Colin, who was much less emotional in his responses and much more controlled in his formulation. Of 35 thoughts that did not transfer to written comments, 30 were positive evaluations of work and the remaining five were disappointment at a lack of a cover sheet and at a lack of a title, frustration at a 'horrible' triangle that should be a Greek letter Delta, the misuse of capital letters for element names, and scanned supplementary information. He was also less consciously aware of the care

he took in formulating his comments to match the needs of his audience. This largely unconscious practice was, however, in line with his core belief in the need to establish a friendly relationship with his students. He also used praise much more sparingly in written feedback than in oral instant feedback sessions, reserving it for subtle points that most people miss. Even a script that was 'definitely first class' received only five positive on-script comments out of a total of 23 despite 19 positive thoughts. Of these, three consisted of only the non-specific word 'good'. He preferred to keep his more specific comments for the summary box due to his espoused belief that students do not read on-script comments. He also copied and pasted the appropriate criteria detailing what was excellent onto the cover page. Again, this lack of praise could unconsciously be in line with a desire for a friendly relationship since praise is often associated with power distance in the literature (Hyland and Hyland, 2006; Basturkmen, East and Bitchener, 2014; Xu, 2017; Steen-Utheim and Hopfenbeck, 2019). There is, however, some dispute in the literature on this point. Xu (2017) makes an interesting observation regarding her own response to the 'supportive and re-assuring effects of positive feedback' (p. 249) as an international PhD student, noting that it gave her the confidence to go on to challenge the authority. Ryan and Henderson (2018) also find that international students were more likely to experience negative reactions to feedback than home students. Sanchez and Dunworth (2015) point out the anxiety and confusion that a lack of specificity in positive margin comments, or a total lack of them, can cause. It could be that highly specific positive feedback, as in Jay's case, renders it useful rather than condescending.

Anthea's emotional engagement with the scripts was more as a co-learner, and her excitement at learning from her students' research was in line with her belief of teaching and learning as a partnership irrespective of the quality of the student (e.g. 'So maybe you could send me that one because that's one I need to read up on. That sounds interesting actually. [FO-A22]). She explained that she set the topic for the essay in line with her research interests before she took on a teaching-only contract and in practice expressed interest in some aspect of eight of the eleven essays. Though she did express frustration at 'silly' students who did not engage with their responsibilities, this was visible in her practice only once ('they haven't followed instructions, which is really silly' [FO-A9]). Like Colin, her positive feedback was reserved for the summary comments, which mainly started with a positive. She expressed a difficulty in finding something to say about good papers though recognised their need for positive reinforcement. Her on-script feedback consisted mainly of ticks when she saw anticipated content and which she expected the students to receive as positive reinforcement, reducing their anxiety about a grade. The literature indicates that students find ticks frustratingly unclear in their meaning and give the impression the text was quickly read (Hyland, 2013b), which was clearly not true in Anthea's case. Her margin comments were minimal as it was hand-written and there were only five instances of the single word 'good', which again could confuse students (Sanchez and Dunworth, 2015).

Jay stood out for her level of positive feedback and was pleased to hear this in the follow-up interview. Anthea was concerned in the follow-up interview

that her feedback might not be perceived as positive. A lack of positive feedback seems to be in line with the empirical literature that finds teachers make more negative comments identifying problems in work (Mutch, 2003; Read, Francis and Robson, 2005; Basturkmen, East and Bitchener, 2014; Voerman *et al.*, 2014), and then struggle to formulate negative feedback in a sensitive way (Dunworth and Sanchez, 2016) in order to manage the sensitive relationship. Williams and Smith (2017) found, for example, that 56% of feedback on submissions awarded a first class degree in political science at two UK universities was negative. Basturkmen *et al.* (2014) speculate that there may be more positives in summary comments, which is supported in these data, and posit that they are more common in oral feedback, which is also supported in the present study. This lack of positive feedback is not in line with espoused views in the literature on perceived beliefs. In a recent Australian survey (Henderson *et al.*, 2018) more staff than students cited the motivational purpose of feedback, and in a UK survey (Mulliner and Tucker, 2017) more staff (73%) than students (57%) perceived exclusively negative feedback to be damaging. Interestingly, in the same study only 16% of lecturers agreed that praise should be included compared to 41% of students. This may be due to differing interpretations of the concept of praise. Since Hattie and Timperley's (2007) warning not to focus on the self, there has been work done to show the value of specific praise in contrast to ritual praise (Dysthe, 2011). Voerman *et al*. (2014) recommend caution in the in oft-cited Hattie and Timperley conclusions about avoiding praise. Positive and motivational psychology stress the advantage of positive feedback opening up spaces for learning, e.g. confidence boost (Voerman *et al.*, 2014), or motivation (Dunworth and Sanchez, 2016).

Thus, the present study adds to the literature in surfacing the emotional response of academic teachers to student work and illustrating how that might impact the formulation of their feedback just as much as their consideration of the emotional response of their students does. Chanock (2000) refers to emotional static which prevents students from using feedback. For teachers, I would suggest an emotional mist and an emotional veil. The former might cause a teacher to lose sight of belief unconsciously; the latter can be drawn down consciously in order to manage the sensitivities of the recipient.

The present study also supports the literature in that, although academic teachers express a belief in the value of positive feedback, as with other beliefs they enact it in different ways and to different degrees in different conditions (Buehl and Beck, 2015). In Colin's case, the positive thoughts are there in the think aloud, but rarely become visible to students in the written feedback whereas they flourish in oral feedback situations. Anthea is disappointed that her on-script ticks may not be perceived to be as encouraging as she had hoped. Jay's belief in positivity flourishes in most feedback formulations, except where there is a conflict with another strongly held belief, that of using literature to support thinking.

## 5.3 Absences

A key contribution to this study is the think aloud protocol, or concurrent verbal report (Cohen, 1991; Ericsson and Simon, 1998; Smagorinsky, 1998), which has enabled some insight into the rationales for the teachers' choices of written feedback focus and formulation, and thus into the complex relationship between a multidimensional, dynamic underlying belief system and different conditions of practice, as well as the overlaps with knowledge and emotion (Ashton, 2015). While it might be simpler to deduce teachers' intentions from the written traces of their decision-making in feedback comments (Mutch, 2013), or discuss feedback intentions retrospectively (Ferris, 2014), very few studies have allowed a comparison between the live thinking process and the action taken to reveal aspects of that thinking in feedback to students in Higher Education (Orrell, 2006; Li and Barnard, 2011) – and these only considered a limited number of scripts. Table 10 below shows how many comments did not transition from thoughts to page (non-comments) compared to the total number of scripts in each case.

*Table 10 Number of comments not transferring from thoughts to page*

| Actor | Number of non-comments | Number of written scripts |
|---|---|---|
| Colin | 35 | 5 |
| Anthea | 6 | 17 |
| Jay | 36 | 16 |

Although some might argue that these numbers could show the limitations of the technique (see Section 6.3), the numbers could be explained in terms of the underlying beliefs of the individual teachers. Anthea was aware of her very thorough approach compared to colleagues in her school, and the data would support that nearly every thought that she verbalised translated into a mark on the script, whether a tick, a correction, or a comment. This also aligned with her desire for a very transparent explicit relationship with her students, which was further supported in the audio recordings of feedback dialogues where she explained the intricacies of her feedback process and presented students with their personal extract from her marking grid, or went through questions that arose using post-it notes or the purple feedback sheet as part of the dialogue.

Colin and Jay, in contrast, were very clear in their espoused beliefs about their selective approach to feedback and what they did not comment on. The numbers in Table 10 do seem to support a more selective approach, but the absences did not always align with espoused beliefs. Many of Colin's absences were positives, despite his espoused desire to point out what the student had done well. He did include far more positives in the oral feedback encounters, where his beliefs were better able to flourish. Other absences were transferable points that would have benefited the student, such as not using capital letters for element names, or not scanning Supplementary Information. These seemed to be unconscious omissions. In contrast, Jay verbalised the choice not to include certain thoughts (e.g. 'a bit repetitive but there we go' [FO-J14]; 'that's very positivist of them but I'm not going to pick them up on it' [FO-J4]). Sometimes the verbalised thoughts gave us insight to a rationale (e.g. 'I'm not going to pick her up on it. Who am I to say anyway – not my field' [FO-J3]) which sometimes linked to an espoused

belief (e.g. 'I won't keep pointing out where it needs work but this applies throughout [FO-J6]; 'They can find out about APA style' [FO-J5]).

Not all absences are revealed by the think aloud. In Jay's case, her belief in not proofreading came through strongly in an impressive individual tolerance of linguistic error in international student scripts that did not even show in her thoughts until the errors impacted communication of thinking. This possible lack of completeness has been noted in the literature (Sasaki, 2008). Just as the teacher is choosing, whether consciously or not, what to reveal to the student, so the actor is choosing what to reveal to the researcher by verbalising that thought.

Despite my attempt to limit the distractions during the think aloud process by absenting myself physically from the room, I was not perceived as absent by the actors. It became clear during my interactions with the recordings and transcripts that on many occasions the teacher was clearly addressing the audience, me, and thus engaging in a sociocognitive activity rather than a purely cognitive one (see Bakhtin's (1984) notion of addressivity and dialogicality). This was particularly noticeable in the cases of Anthea and Jay, with Jay addressing 61 asides of varying lengths and functions to the researcher, and Anthea 23 (e.g. 'That's the dog shouting at my other half coming in' [FO-J9]; Do you know what, it's like quarter past five and it's still a bit light. That's so cool' [FO-J8]; 'it's quarter to nine in the evening on the 28th February and I've been on strike – essentially working from home instead of being at work and not getting paid for it. [FO-A18]). This happened during recordings of oral feedback sessions, too, with Anthea addressing me by name and giving contextual information, such as describing artefacts they were looking at or explaining why they were doing things in certain ways (e.g. 'so Emily and I are meeting. It's 9.40 on Friday 9th March and I emailed comments to Emily and she's obviously already looked at them because she is following up on something' [FO-A20]). In one instance, Anthea concluded a feedback conversation by asking the student if the tape had bothered them ('A: I don't think it inhibited us too much, did it? St: No, it was fine' [FO-A21]) and another student requested the tape be turned off when they got onto more personal matters ('St: Do you mind if we.. A: Oh yeah yeah sorry I'd forgotten. Hang on' [FO-A16]).

Although it is not as clear in the English language as it is in Japanese, when the 'desu ne' ending clearly involves the audience (Sasaki, 2008), there are many occasions when the teacher directly apologised, questioned, or explained something to me, the non-expert. There was information about when and where they were working (e.g. 'It's 6 o'clock on Tuesday 30th January I've done a few more marking things that we didn't have consent for the recording so we're back onto one with consent' [FO-J12]; 'It's Saturday 20th January and I'm sitting down at the kitchen table. The guys are out shopping and I've hopefully got some peace and quiet for a little while' [FO-A12]). There was information about the teacher's state of mind (e.g. 'It's Sunday early afternoon, a sunny day outside and this is my last one – woohoo!' [FO-J15]; 'I don't feel I've had a specially productive day today but you know I just feel I'm finding it a bit difficult to focus and so forth but that's how it goes sometimes' [FO-J11]). There was insight into the feedback

process (‘and the other section she wanted me to have a look at was…so let’s see [FO-A19]).

Thus, the so-called ‘think aloud’ process contributed to this study by revealing absences in the feedback process visible to the student but also revealed that the researcher was not absent in the ‘think aloud’ process, providing evidence of this technique as a sociocognitive rather than cognitive activity.

# 6 Conclusion

The present study has brought together the research fields of teacher beliefs and feedback in an attempt to address a practical problem in a novel way which has resulted in empirical, theoretical and methodological insights. The key novelty of this study lies in its combination of the think aloud technique with the critical realist concept of depth ontology. This offers new insight into the stratified reality of the feedback process and highlights the potential for absences that may emerge in the transition between the layers of *real* beliefs to *actual* events, and thus impact the *empirical* feedback experience of the student in terms of both focus and formulation. Empirical evidence of the different ways in which these teachers' beliefs interact with feedback practice (by surfacing, flourishing, resisting, or being compromised) adds to the existing body of research and ultimately to our theoretical understanding of the complex, dynamic, multidimensional system of beliefs that underlies this equally complex practice. The empirical evidence in this study also serves to problematize the cognitive nature of the think aloud technique, drawing attention to its social-situatedness.

It is the range of different conditions for feedback observations across disciplines, modes, tasks and levels that is another key contribution of this study. Importantly, the feedback observations in this study are not limited to written feedback mode. The recordings of oral feedback conversations between teacher and student allowed useful comparisons to be made between written and oral feedback opportunities but also between different levels of student engagement with these opportunities – leading to the important conclusion that it is not the opportunity for an oral dialogue itself but the skill of both teacher and student in managing an ongoing interaction that is important in a successful feedback process. As well as managing the unpredictability of a student partner, the teacher has to manage their own emotional responses which may consciously or not affect the transition of their beliefs in to practice.

This study serves to highlight the intrapersonal as well as interpersonal variability in feedback practices but suggests that this should perhaps no longer be seen as problematic inconsistency but rather beneficial differentiation. Careful alignment of feedback with purpose in task design might allow different beliefs to surface in different conditions and different student needs to be met.

This concluding chapter will summarise the key empirical findings of the study in response to the initial research questions; suggest implications for practice and recommendations for future research given the limitations of the study; and conclude with some final remarks on my own learning from the research journey and feedback experience.

## 6.1 Key findings

The present study has identified certain key factors, both internal (emotion) and external (mode, task, individual), that mediate the transition of teachers' *real* beliefs into *actual* feedback practices. These will be summarised below in response to the initial research questions.

### 6.1.1 RQ1a What are the distinguishing features of the feedback practices of different academic teachers in different parts of an institution of higher education?

In line with the stratified view of feedback practice in this study, a distinction was made in the findings between distinguishing characteristics observable to the student and those observable to the researcher. The practice was then discussed in terms of feedback focus and formulation. It emerged that both focus and formulation differed between written and oral feedback, between tasks, and between individual students. Within this very dynamic picture of feedback practice (Section 6.1.4), there were still certain distinguishing characteristics within each case.

At the student level, Colin's practice was notable for its planned regular active engagement – both through interactive cover sheets, and instant oral feedback on iterative tasks (See Section 6.1.4 for how these plans were sometimes disrupted by competing beliefs and different individual responses.). At the researcher level, Colin's practice stood out for the absenting that took place as a result of choices made, either consciously or unconsciously, between these private and public layers in written feedback. This resulted, at times, in a loss of potentially useful feedback information and in particular the praise and softening that happened in the much friendlier oral encounters. The focus of Colin's feedback was mainly on content and language, with a greater emphasis on thinking in the oral encounters.

Anthea's public written feedback was notable for being hand-written with many on-script ticks and short margin comments that were amplified in summary comments and consistent with the coversheet. Students were encouraged to engage actively in their response to the coversheets. Her oral feedback was used to follow up written feedback and had a wider focus, moving from the task-based focus on content, language and organisation on the written work to a greater focus on process and self-regulation - becoming quite personal on occasion. Of particular note in what was observable to the researcher was the time dedicated to a very systematic, thorough approach to feedback and the enjoyment derived from learning from the student work.

Jay's public feedback was all electronic – even the oral encounter observed. The student's ownership of the oral event through a blend of written and oral feedback was evidenced in topic shifts and length of turns. Students were also invited into a conversation in written feedback through the frequent use of questions in on script feedback. This case was unusual in its sustained focus on thinking and organisation across tasks, modes, and levels. In addition to this cognitive engagement, it was noteworthy for its level of emotional engagement with the audience and its consistent level of positivity. The positive comments were unusual in their degree of specificity, which was also true for negative comments. What was of particular note at the private level was the intentional absence of on script focus on language except when it interfered with thinking, and the conscious work done to manage emotions – both those of the student and the teacher. There was, however, an unconscious mist as well as the conscious veil of emotions. For

example, the formulation of feedback was unconsciously impacted by the quality of the thinking in the student work.

### 6.1.2 RQ1b How do feedback practices compare?

This research question arose in the context of a newly published institutional education strategy for 2017-2023 which aspired to a common approach to assessment and feedback, drawing on institutional principles for assessment and feedback, aimed at ensuring that both staff and students share common expectations and are aware of their responsibilities. My own experience of trying to standardise an approach to feedback among 30 teachers on an English for Academic Purposes pre-sessional course (reported in Gillway, 2016) led me to question the extent to which this was possible at institutional level. The research design allowed comparison of feedback practice not only interpersonally across teachers within an institution, but also intrapersonally across feedback practice under different conditions within an individual teacher's lived experience.

The three actors in the present study, who were all experienced motivated academic teachers and frequent participants at institutional feedback CPD events, did share some common general beliefs (e.g. active student role), and some common specific points of planned formative practice that were aligned to these (e.g. interactive cover sheets and nested tasks). However, their lived reality impinged on their plans so *actual* feedback events, and by extension their students' *empirical* feedback experience, varied both within and across cases both in terms of focus and formulation of feedback. This variation was due to combinations of delivery mode, task purpose, student partners, and emotional reactions to features of student work. These teachers also reported different practices among their colleagues – some inspirational and some frustrating. Thus, it appears that at the outset of the strategy, there was certainly work to be done. It would be interesting to see how a similar cross-sectional study carried out now at the mid-point of the strategy might differ in its conclusions.

In terms of awareness of their responsibilities, it was clear that these teachers went above and beyond for their students. The think alouds and recordings of oral feedback events offered insight into the amount of time dedicated to feedback and the care taken in its formulation. Sometimes time constraints took their toll on planned practice within an individual case, which could be seen in the formulation of feedback becoming less sensitive than intended. The common concern for sensitive delivery of unexpectedly negative messages to students can change the style of feedback formulation from developmental to justification of grade [Anthea], or change the nature of the questions posed from conceptual to directive [Jay]. On the other hand, sometimes feedback that is too hedged for interpersonal reasons hides the transactional message [Colin].

There was evidence of feedback focus at different levels (Hattie & Timperley, 2007), sometimes on the task, other times on the process of achieving that task, and other times on wider learning issues. This again varied both within and between cases, dependent on mode, task, and student needs (Section

6.1.4). There is a risk of trying to apply feedback only at the level of process or self-regulation irrespective of task or learner needs.

There was promising practice in feedback design in line with the new paradigm of feedback as a sustainable dialogic process, as outlined in Institutional Principle 1.3 'Assessment and feedback is a conversation, which is not limited to isolated events, but provides the opportunities for students to engage with their learning with a continuing dialogue and as part of a learning community' (University of Bristol, 2015). There was evidence of feedfoward that can be applied in nested [Anthea and Jay] or iterative [Colin] tasks, opportunities for discussion of feedback with tutors [all] and peers [Anthea and Jay], and interactive cover sheets [all 3 cases] that would aid self-regulated learning. In common with Winstone and Carless (2020), I noted a much more positive picture than much published empirical research, particularly the two studies closest to mine in design (Orrell, 2006; Li and Barnard, 2011). This could be because of self-selection. These were clearly reflective practitioners who are willing to innovate and change pedagogy based on learning from students [Anthea], learning from colleagues [Jay and Anthea], learning from courses and trying things out [Colin and Jay]. They also all commented on how this research enquiry had helped them move their practice forward in different ways. However, even the practice of these committed individuals was not entirely consistent in all cases under all conditions (cf. Section 6.1.4).

There was some evidence of inclusive practice in line with Institutional Principle 2.4 'assessment and feedback processes should be designed wherever possible to take into account a diverse range of students' (University of Bristol, 2015) , although this was often ad hoc rather than designed into the feedback process. For example, Anthea adapted her preferred delivery mode from handwritten to electronic feedback where student needs demanded. The question arises as to whether consistency of experience should be sacrificed in order to make space for individual difference. This study has shown, for example, that oral feedback conversations do not work well for all students and has suggested that students should be able to select a feedback focus based on their needs which may not be in line with the purpose of a particular task. This need for accommodation of individual difference should also be in place for academic teachers. It has been noted that an academic teacher may refuse to comply with calls for consistent use of pro-formas where they do not meet individual teacher needs. It should also be acknowledged that the goal of consistency might also impede academic teachers from trying out innovative practice in feedback techniques.

I conclude that the institution and student body should not expect consistency at the level of *empirical* student experience of feedback given the necessarily different conditions for feedback across an institution, such as individual, task, and mode – even within a discipline. Even within a single case, it can be seen that different audiences and different purposes for feedback result in different choices being made so the transition from *real* beliefs to *actual* practice is not a smooth one – nor should it be expected to be.

### 6.1.3 RQ2a What are the academic teachers' feedback-related beliefs? RQ2b How do beliefs compare?

A comparison of beliefs expressed during the background interviews can be seen in Table 8 in the introduction to Chapter 5 as part of the cross-case analysis. Feedback-related beliefs have been interpreted widely in this study to include general beliefs about teaching and learning in Higher Education (role of Higher Education, role of teacher, role of student, teacher/student relationship) as well as more specific ones on assessment and feedback.

Thus, the so-called 'think aloud' process contributed to this study by revealing absences in the feedback process visible to the student but also revealed that the researcher was not absent in the 'think aloud' process, providing evidence of this technique as a sociocognitive rather than cognitive activity.

Otherwise, each individual held a range of specific beliefs that differed in nature and the way in which they were held. Some beliefs were in tension with others held by the same person (e.g. consistency vs individual difference vs student responsibility in Anthea's belief system). Some were expressed by one person but then demonstrated by others, showing that beliefs were not all consciously held (e.g. importance of formulation of feedback articulated by Jay but demonstrated unconsciously by Colin and Anthea). Some were newly acquired from theory and still peripheral to a belief system in flux (e.g. process vs task focus for Colin). Others were based on personal experience and core to a belief system (e.g. need for sensitivity to audience in formulation for Jay).

### 6.1.4 RQ3a To what extent are beliefs visible in feedback practices? And RQ3b To what extent do different conditions impact enactment of different beliefs?

Each case represents a different context within one institution. Within and across cases feedback was observed under different conditions of mode, task, and level of study. There was not a one-to-one relationship between beliefs and practice. Beliefs were seen to surface, flourish, withstand, or be compromised by these and other mediating factors, namely emotions and individual student partners, depending on the nature of the belief and how they were held. There was also some indication of the reciprocal process of feedback practice becoming part of a belief system in flux.

Shared beliefs do not always result in common practices across cases. For example, shared core beliefs in the purpose of feedback for improvement resulted in slightly different focuses for the target of improvement. Similar beliefs might lead to different practice (e.g. all articulated the belief in highlighting what has been done well but this was enacted differently across cases and even within cases under different conditions). Likewise, common practice might be caused by different beliefs (e.g. a shared focus on organisation but based on a belief in communication or development of thinking).

There are interesting tensions between beliefs within a case. For example, while Anthea held a strong belief in consistency which flourished in her approach to written feedback, her equally strongly held beliefs in student responsibility and individual difference meant that her systematic approach to oral feedback was somewhat disrupted when students did take control of the dialogue. She was more willing to hand over control of the feedback focus to students on some tasks than others, depending on the purpose of the task.

Some beliefs flourish only under certain conditions. For example, it was in oral rather than written mode where there was a greater focus on thinking (Colin), more opportunity for self-regulated learning (all), and more praise (Colin). However, task and student partner might impact both focus and formulation of beliefs as well as quality of interaction (Colin and Anthea) – which is more important than the oral opportunity itself.

Beliefs in student and teacher roles and relationship also impact formulation of feedback. This was observed in the conscious use of questions to prompt thinking (Jay), and possibly the unconscious avoidance of praise to reinforce friendship and avoid power divides (Colin), as well as the difference in tone of feedback based on teacher knowledge of or beliefs about the student (Colin).

Even strongly held core beliefs can be compromised, either consciously or not, by the emotional response of the teacher to the student work. This was seen to impact both focus and formulation of feedback (Jay). Some core beliefs were more strongly held than others and so were less sensitive to different conditions (e.g. focus on thinking at all levels in all modes for Jay).

Despite the cross-sectional nature of this study, it was possible to observe some flux in the belief systems. Actors noted how practice from colleagues and courses entered into their belief systems, and in Colin's case the peripheral nature of a new theory-based practice was seen more frequently in his words than his actions. In Anthea's case, there was a possible belief in flux as a student demonstrated that a feedback conversation need not be solely oral and face-to-face to be effective. There was evidence of blended conversations in the cases of both Jay and Anthea.

## 6.2 Implications for practice

Despite the unique characteristics of this study, it is anticipated that individuals may draw conclusions from the study relevant to their own context so it may be of benefit to a wider audience than the immediate institution where the study was carried out.

### 6.2.1 Managers

It may be unrealistic for institutional policies to expect consistency at the level of practice given the situated social nature of feedback and the complex, dynamic, multidimensional system of teacher beliefs underlying it. Neither is a one-size-fits-all approach to feedback practice best suited to student or teacher inclusivity. Discussions at the level of beliefs and principles, and acknowledgement of the need for practical adaptations to

suit task and individuals may be a way forward in the development of teacher feedback literacy. The impact of anonymity on the feedback relationship should also be considered in the light of the increased level of engagement where interactive cover sheets are used with known and trusted teachers.

### 6.2.2 Teachers and students

Feedback observations have proved to be good opportunities for fruitful reflection, discussion and learning from the practice of colleagues. Observing, or self-recording, and reflecting on oral feedback conversations may dispel the myth that it is the oral feedback event itself that is necessary for effective feedback. It is the quality of the interaction that is key and both participants need training in how to manage the dialogue (again perhaps through self and other observation) so that the necessary conditions for productive feedback opportunities are present. Where it is not possible for students to choose their preferred mode and focus for feedback, it may be advisable to design a range of task types to enable inclusive feedback at the different levels of task, process, and self-regulation across the course, or programme, as a whole.

### 6.2.3 Researchers

As this enquiry has progressed, I have become more confident that my work may be of interest to other researchers in the field of teacher beliefs or feedback. As well as supporting our growing conceptual understanding of the complex, dynamic, multidimensional system of teacher beliefs, there is also the methodological contribution of the value of think aloud protocols to give greater access to the construct being studied, while recognizing that these protocols are socially constructed. For researchers in feedback, this study may be of interest to those studying the teacher side of the feedback partnership – which has attracted more interest in the years since I started this study. Of particular interest might be the considerations of affect, both teacher and student, on feedback practice, as well as considerations of oral versus written mode.

## 6.3 Limitations of the present study and recommendations for future research

Although I have endeavoured to produce trustworthy findings, these are my interpretations and other researchers might make different ones. The findings presented in this work represent a small study of choices that were made, either consciously or unconsciously, between potential feedback focuses and formulations at a particular point in time and space. This constrained what became available to the student as part of their feedback experience and to the researcher as part of this study. Thus, there is no claim of representativeness of the individuals, the disciplines, or the institution involved directly in the study, or of Higher Education feedback practices in general. Changes in the conditions may influence choices made and generate a new set of data. However, what will cross contexts is the explanatory power of the concept of depth ontology when applied to the vertical stratified reality of feedback practice, and the insights derived concerning the complex nature of the relationship between beliefs and practice. It would be interesting to see a replication of this study with a

different data set in a similar Higher Education context. Further exploration of individual difference within disciplines might counteract the tendency to overgeneralise when considering differences between disciplines.

Some data were unused even with a sample this size due to limitations of time and words. It is acknowledged that there is always potential for researcher bias in the selection of data for inclusion in the report. The intention was to mitigate this by the transparency in my decision-making, the abductive process of merging data with theory, and the quantification of qualitative data to help identify dominant codes.

The amount of data generated and collected in each case varied due to the real world nature of the study and thus the natural limitation in cohort size, and the number and type of assessment and feedback events the teacher would be involved in during my data collection period. There was, however, a range of different types of task, mode of delivery, and levels of study that enabled potentially useful comparisons to be made.

The nature of the volunteers, all experienced reflective practitioners who have demonstrated a particular interest in feedback by attending CPD sessions, could also be seen as a limitation. Experience has been mentioned as a possible factor in the relationship between beliefs and practice (Basturkmen, 2012; Buehl and Beck, 2015). It is interesting to contrast the present findings with those of one of the two other mixed methods studies into feedback beliefs using a think aloud protocol. Li and Barnard's (2011) sample consisted of all inexperienced untrained teachers and they showed greater convergence in practice and a concern with justification of grade rather than improvement. This could indeed support the assertion that experience is a factor worthy of investigation. The inclusion of a mixture of less and more experienced teachers in any future research might add additional insights and broaden our understanding of both the feedback landscape and its complex relationship with underlying belief systems.

The cross-sectional nature of the study constrained the possibilities of examining any flux in beliefs and feedback practices more fully, including gathering more evidence of the reciprocal nature of the relationship. A longitudinal exploration of how beliefs and their relationship with feedback practice develop over time would also be of value.

Though critical to this study, the think aloud technique has its limitations. It has been documented that some people find it easier to think aloud than others (Ericsson and Simon, 1998; Smagorinsky, 1998), which is why some guidance on how to think aloud was offered (see Guidance notes in Appendix XI) One should also highlight the possibility that actors perform their best selves for the audience. This was mitigated by the inclusion of a much larger number of scripts per actor than in similar studies, which would allow a naturalization of the process. The teachers reported that it got easier, with Anthea commenting to the tape that she was so used to trying to speak about what she was thinking that she started to give herself a running commentary of how to put laundry in. The issue of inner speech versus social speech is also debated in the literature (Ericsson and Simon,

1998). Sasaki (2008) concludes that the participants are on stage playing a social role, which is in line with my decision to use the term actor rather than participant. It is important to recognise that the protocol, like feedback itself, is a socially situated activity. In this case, I believe the socio-cognitive dimension was an advantage as it provided a richer description of work context with all its distractions, be that from the dog, the husband, the phone or the washing machine.

Finally, it should be acknowledged that, although my aim was to focus on the teacher side of the feedback partnership that had been somewhat neglected in the literature at the time this study began, the inclusion of the student voice through oral feedback encounters and the study of student response to feedback through text analysis in the cases of Anthea and Jay have greatly enriched this study. Had there been more time, it would have strengthened the study to include more of the student partner.

## 6.4 Final remarks

This research journey began with a desire to understand more fully the possible reasons for the continued divergence in the student feedback experience in a pre-sessional English for Academic Purposes course in the summer of 2015 despite attempts by me, as Director of the Centre, to achieve a standardised approach to feedback quantity, focus, and formulation through induction and CPD sessions (Gillway, 2016). By extending the current enquiry across disciplines to the wider university context, which was also seeking a standardized approach to feedback, I have gained deeper insights into the field of teacher beliefs, begun to understand the explanatory power of depth ontology, and glimpsed a rich diversity of feedback practices – all of which will transfer back to my own discipline and to my professional life as an EAP practitioner and leader. A tension in my own belief system became apparent in my research diary. Whereas I had started out looking at feedback from the perspective of a tester who was keen to ensure standardization, my perspective as a teacher and leader who values diversity and differentiation has come to the fore. I moved from aiming for consistency to aiming for principled variability.

It has been challenging at times to balance the practical and the theoretical aims of my study, but I do believe that there is a reciprocal relationship between them. I was pleased that the actors in my study felt that they had benefited in practical ways from their participation in the early stages of this research enquiry. It will be interesting to hear how they feel their beliefs or feedback practice have evolved in the four years between their initial participation and their reading of the final product – if they take up that invitation. I too feel that my participation in the theoretical endeavour of a research enquiry on this scale will have practical application in my more immediate context to the benefit of teachers and students who work with me there. I have learnt not just as a researcher but also as a student participant in the feedback process on this study.

While others (Fletcher, 2017) have used an iceberg metaphor to illustrate the concept of depth ontology used in this study, I will conclude by drawing

an analogy with a fruit tree, which I feel better illustrates the combination of internal and external mediating factors highlighted in this study. All trees have an unseen root system – some more extensive or deeper than others. Some trees grow better in certain soils and need external help for pollination. Some people do not notice the fruit, or even the tree. Some just admire the tree. Others pick and eat the fruit, with a beneficial effect on their long-term health. External conditions, such as frost or storms, can damage the tree and prevent fruiting. A tree that has produced a lot of fruit one season sometimes needs a rest and is less productive the next. A fruit can provide seed for a new tree.

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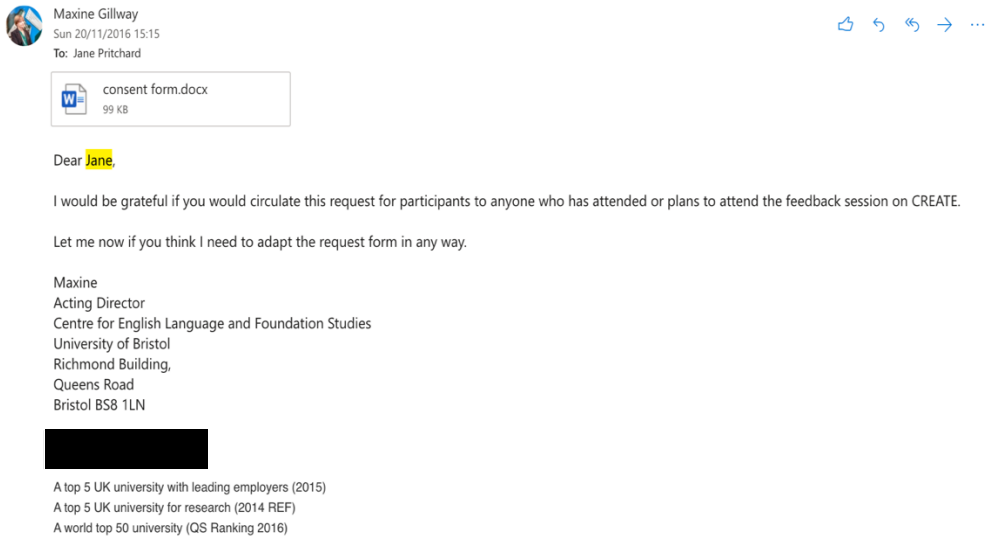
# Appendices

## Appendix I: Email request for participants



Maxine Gillway
Sun 20/11/2016 15:15
**To:** Jane Pritchard

consent form.docx
99 KB

Dear Jane,

I would be grateful if you would circulate this request for participants to anyone who has attended or plans to attend the feedback session on CREATE.

Let me now if you think I need to adapt the request form in any way.

Maxine
Acting Director
Centre for English Language and Foundation Studies
University of Bristol
Richmond Building,
Queens Road
Bristol BS8 1LN

[redacted]

A top 5 UK university with leading employers (2015)
A top 5 UK university for research (2014 REF)
A world top 50 university (QS Ranking 2016)

## Appendix II: Staff consent form

I am seeking volunteers to take part in the research enquiry stage of my EdD at the University of Bath. The study will follow the ethical guidelines published by the British Education Research Association, including the seeking of informed consent, explanation of the right to withdraw, and the use of de-identified data and pseudonyms for participants.

The focus of my research is a cross-disciplinary exploration of the relationship between practitioner beliefs, context and feedback practices in written assessments in Higher Education.

Should you choose to volunteer, your involvement would consist of:

a) a semi-structured background interview of approximately 1 hour in May or June;
b) an audio self-recording of your thoughts as you give feedback to a sample of current students on a piece of written work (think aloud protocol) next academic year;
c) access to previous feedback on the written work of two different levels of student;
d) a follow-up interview to discuss some of your feedback choices.

Your name will not appear and you will not be identifiable in any use that is made of the data in my thesis, or in any future presentations or publications of the work. No-one other than me will hear the voice recordings. Only transcripts will be used in my work. The recordings will be destroyed after completion of my EdD.

Participation in this project involves no known risks to you. You can withdraw from the project at any time with no negative consequences.

I would be grateful if you would sign and date the consent form below and return the form to me at maxine.gillway@bristol.ac.uk

Thank you,

Maxine Gillway

I understand the purpose of this research enquiry and agree to be involved as outlined above. I give my consent for the data to be used as outlined above.

Signed: _____
(an email response with the above text will constitute a signature)

Print name: _____

Date: _____

## Appendix III: Student consent form – written feedback

December 2017

Dear student,

Re: Research on Feedback

Your lecturer/tutor has volunteered to participate in some research that I am carrying out into feedback on student written work as part of a Doctorate in Education.

This involves me

a) recording the feedback-givers thoughts as they give your feedback;
b) looking at the written feedback you are given on selected assignments;
c) discussing your assignment and feedback with your tutor/lecturer.

Your name will not appear in any of this research and you will not be identifiable in any use that is made of the data in my thesis or presentations of it.

Participation in this project involves no known risks to you. You may choose not to volunteer your work with no negative consequences. You can withdraw your work from the project at any time with no negative consequences.

If you are happy for your feedback to be used in this way, please sign the form on the reverse of this letter and give it to your lecturer/tutor. Your lecturer/tutor will return the form to me.

Thank you,

Maxine Gillway

## Appendix IV: Student consent form – oral feedback

December 2017

Dear student,

Re: Research on Feedback

Your lecturer/tutor has volunteered to participate in some research that I am carrying out into feedback on student written work as part of a Doctorate in Education.

This involves me

a) recording the feedback-givers thoughts as they give your feedback;
b) recording the tutorial when you are given oral feedback (I will not be physically present – your tutor will use a small audio voice recorder);
c) looking at the written feedback you are given on selected assignments;
d) discussing your assignment and feedback with your tutor/lecturer.

Your name will not appear in any of this research and you will not be identifiable in any use that is made of the data in my thesis or presentations of it.

Participation in this project involves no known risks to you. You may choose not to volunteer your work with no negative consequences. You can withdraw your work from the project at any time with no negative consequences.

If you are happy for your feedback to be used in this way, please sign the form on the reverse of this letter and give it to your lecturer/tutor. Your lecturer/tutor will return the form to me.

Thank you,

Maxine Gillway

## Appendix V: Background interview question prompts

Thank you for finding the time to take part in a semi-structured background interview as part of my EdD research into feedback-giver beliefs and practice.
In preparation for the interview, perhaps you would like to give some thought to the following points that will be discussed.

On a scale of 1 ☹ to 5 ☺ rate your satisfaction with

| | | | | | |
|---|---|---|---|---|---|
| Your **knowledge** of | | | | | |
| Teaching in Higher Education | ☹1 | 2 | 3 | 4 | 5☺ |
| Giving feedback on written work | ☹1 | 2 | 3 | 4 | 5☺ |
| Your **skills** in | | | | | |
| Teaching in Higher Education | ☹1 | 2 | 3 | 4 | 5☺ |
| Giving feedback on written work | ☹1 | 2 | 3 | 4 | 5☺ |
| Your **confidence** in | | | | | |
| Teaching in Higher Education | ☹1 | 2 | 3 | 4 | 5☺ |
| Giving feedback on written work | ☹1 | 2 | 3 | 4 | 5☺ |

**YOUR BACKGROUND**

What prompted you to become involved in Higher Education?

What has had the most impact on the way you teach your students?

**YOUR BELIEFS**

What do you believe is the **role** of:

Higher Education

a teacher in HE/your discipline

a student in HE/ your discipline

written assessment in HE / your discipline

feedback on written assessment in HE / your discipline

**YOUR CONTEXT**

**When** do you give feedback to your students on their written work?

**How** do you give feedback to your students on their written work? (mode)

What do you tend to **focus** on when giving feedback to students on written work?

How do you tend to **formulate** your feedback to students on written work?

Do you behave differently with **different groups** of students? If so, how? Why?

Is there anything that **helps** or **hinders** your role in the process of giving feedback to students on written work?

How familiar are you with the **UOB principles** for assessment and feedback in taught programmes? How far do you agree with them?

## Appendix VI: Sample background interview transcript from Colin

Anyway so what do you believe is the role of teacher in HE and in chemistry in particular and then the role of the student

so what I try and do is teach my students to **think** (.) actually um so when I'm running a lab class on the face of it the point of running a lab class is teaching the students how to do **practical** things how to make a reaction how to set up a reaction or work a bit of **kit** [intake of breath] and that is what they think it is about as well but what **I** think it is about is actually trying to teach them um you know if I teach them **two** ways of doing something and then they say to me you know which way shall I do it and I say to them well that is the kind of decision we are teaching **you** to make which they **hate** but actually that's what it is all about teaching them to make **educated decisions** that is fundamentally is what it's all about making **educated decisions**

so that's sort of the role of a student as well

that's what the role of the student **should** be and that's what I try and teach them like I say they don't always **appreciate** that a lot of the time they would like you to tell them the **answer** so that they can get the **marks** but that is not what I see my job as at all that's you know when the two worlds collide

so written assessment then in HE and in your discipline in particular

so in chemistry labs in my chemistry labs we have two distinct forms of written assessment which are basically long reports and short reports the function of a short report is for the student to convince me that they have done the experiment and made it work so they describe what they've done and they set down their results and they show me their spectra and everything that came out of the experiment and the idea is that by doing that I can look at it and I say yes you've made this experiment work and you've made 20 grams of beautiful product have a whole load of marks or no this experiment has failed and if I look at your results you've made the wrong stuff so that is the short ones and then the longer ones have to do that and they have to um provide some kind of context to the work as well so they're expected to to they have the introduction that sets the context of the work they are expected to explain how the reaction works how the chemistry works what conclusions they can draw how they can go about um improving it next time you know that kind of thing so more like an essay and in that case um yes they have to show me that they actually **understand** what they've done as well as that they have actually done it

and so the fb on that written assessment then what's the role of your fb?

so the fb there is is um so over the course of their 3rd year they would do 6 of these 6 bits of work like this and the feedback is basically to um to help them do the next one better so in terms of the short reports there are very um (.) specific ways in which you are meant to present your work as a chemist you know you record your data in this fashion you draw your graphs like this so for the short ones it would be about (.) getting them to do that presentation right and also if it hasn't worked trying to work out why it hasn't worked

you'd do that or ask them to do it?

yes saying to them well this clearly hasn't worked I can tell that because such and such and I think you have done such and such which you know try not to do it next time

Ok right

and for the longer ones it's that but as well it is about being able to write it's about um (..) understanding convincing me that they understand the chemistry that um they've done

so I try and provide two kinds of feedback I've got some here for you [*puts papers on table*] so on a typical student essay I would go through and what I would do is and at individual points in the text I would make comments say um your reasoning at this point is faulty or this diagram doesn't show me um what you think it is or you've written [this is good *reading form fb on script*] you've written this sentence here that doesn't make any sense whatsoever [laughter] um and that would also include um spelling mistakes and grammar and things like that umm but I am aware that (.)you know this student will never do this particular experiment again [right] so actually me going through and pointing out the flaws their misunderstandings of this particular piece of chemistry is is no good so as well as that at the top of the front page [*turns page over* ][uh huh] I try and write a little overall summary of what's good what's bad um you know that will be transferable
ok so this is like a ready made thing an excellent a good

yes these are this is our marks scheme and I pop on there the bit of our mark scheme that I think applies to the essay and where the mark has come from
and you highlight the bits yeah Ok so if like on here you have got two things u in the 80 box and one down in the 50s
yes and then they end up with a mark somewhere [somewhere in between] in between and I explain to them how I came up with that mark
and you do a calculation OK
so that is paper-based what I have started doing this year for the short reports which are often no more than two sides and I can read them is less than 5 minutes is that I've started marking those **with** the students because I have a **lot** of those to do 100 of those so what I get the students to do is they make an appointment to come to see me they bring a printed copy of their report which is typically like I say one or two sides I sit there and read it and then I discuss it with them there and then I get my pen out highlight bits we talk through which bits are good which bits are bad then I give them the mark scheme I ask them to (.) tell me what mark they think it deserves based on the discussion we have just had and then I say yes I think that's fair or no you are doing yourself down or no it's not that good [laughter] and we agree a mark there and then in person [oh what an excellent idea] and that takes typically about 10 minutes actually 10 15 minutes for each one the students like um that cos they don't often get the chance to discuss their work it's **instant feedback** they like that and they understand where the mark comes from **my** worry about it is that there is no record of what is said with written feedback I can always go back and say look here it is whereas with a piece of oral marking like that um there is no record
but you keep the original student text though do you?
I have a copy of the original student text and I have a copy of the mark but with a piece of oral marking like that there is no record of the discussion between us
why does this worry you?
why does that worry me cos one day a student is gonna go that's not the mark we agreed or I think you you know marked this unfairly and this will be four months ago and I won't have the faintest idea [laughter] why I gave them 50 out of 100 or something other than the fact that we did it together and that's that has not happened yet but I am sure one day it will but I'll cross that bridge when I come to it

## Appendix VII: Data sets

| SCRIPT | GENDER | LEVEL | TASK | WORDS | SCORE | FEEDBACK MODE | TIME |
|---|---|---|---|---|---|---|---|
| C1 | female | UG (on 4 yr MSc track) | Data summary | 391 | 65 | Oral face to face | 8:20 |
| C2 | male | UG (on 4 yr MSc track) | Data summary | 382 | 65 | Oral face to face | 12:27 |
| C3 | male | UG (on 4 yr MSc track) | Lab report | 3684 | 72 | Word comment | 27:30 |
| C4 | female | UG (on 4 yr MSc track) | Lab report | 1642 | 58 | Word comment | 24:02 |
| C5 | female | UG (on 4 yr MSc track) | Lab report | 3737 | 72 | Word comment | 24:48 |
| C6 | female | UG (on 4 yr MSc track) | Lab report | 2484 | 83 | Word comment | 24:20 |
| C7 | male | UG (on 4 yr MSc track) | Lab report | 2291 | 65 | Word comment | 24:56 |
| A1 | anon | UG YEAR 2 | Wk 5 essay (lit review) | 1979 | 68 | hand | 1:11:38 |
| A2 | anon | UG YEAR 2 | Wk 5 essay (lit review) | Not stated | 68 | hand | 50:51 |
| A3 | anon | UG YEAR 2 | Wk 5 essay (lit review) | 1204 | 52 | hand | 40:20 |
| A4 | anon | UG YEAR 2 | Wk 5 essay (lit review) | 1534 | 62 | hand | 32:07 |
| A5 | anon | UG YEAR 2 | Wk 5 essay (lit review) | 1708 | 58 | hand | 35:44 |
| A6 | anon | UG YEAR 2 | Wk 5 essay (lit review) | Not stated | 58 | hand | 32:35 |
| A7 | anon | UG YEAR 2 | Wk 5 essay (lit review) | 1947 | 68 | hand | 47:37 |
| A8 | anon | UG YEAR 2 | Wk 5 essay (lit review) | Not stated | 65 | hand | 39:44 |
| A9 | anon | UG YEAR 2 | Wk 5 essay (lit review) | 1971 | 58 | hand | 53.20 |
| A10 | anon | UG YEAR 2 | Wk 5 essay (lit review) | 2003 | 58 | hand | 55:11 |
| A11 | anon | UG YEAR 2 | Wk 5 essay (lit review) | 1978 | 58 | hand | 49.12 |
| A12 | female | UG YEAR 3 | Timed formative essay at home | No count by hand in one hour (short) script not availabl e | 62/65 | hand | 24.06 |
| A13 | female | UG YEAR 3 | Timed formative essay at home | 8 pages in 1.5 hours (too long) script not availabl e | (55) 58 | hand | 56.20 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| A14 | 2 females (AP12/AP13) | UG YEAR 3 | Timed formative essay at home | cf AP12/13 | cf AP12/13 | oral | 50.20 |
| A15 | female | UG YEAR 3 | Timed formative essay at home | 4 sides visuals and notes not essay form | 55 | hand | 21.12 |
| A16 | Female AP15 | UG YEAR 3 | Timed formative essay at home | As above | As above | oral | 40.15 |
| A17 | female | UG YEAR 3 | Timed formative essay at home | 3 sides text (525 words no visuals) | (58) 62 | oral | 25.30 |
| A18 | female | UG YEAR 3 | Project | 900 | - | Word comment and track changes | 37.24 |
| A19 | female | | Project (other sections) | - | - | Word comment and track changes | 1.00.30 |
| A20 | female | | Project | - | - | Oral | 50.19 |
| A21 | female | | Project | 1998 | - | Oral | 40.16 |
| A22 | male | UG YEAR 3 | First draft project introduction | 1506 | - | Oral | 1.21.50 |
| J1 | female | UG YEAR 1 | Lab report 22/11/2017 | 2000 | 72 | Grademark | 42:08 |
| J2 | female | UG YEAR 1 | Lab report | 2046 | 55 | Grademark | 40:38 |
| J3 | female | UG YEAR 1 | Lab report | 2082 | 82 | Grademark | 33:15 |
| J4 | female | UG YEAR 1 | Lab report | 1919 | 68 | Grademark | 34:10 |
| J5 | female | UG YEAR 1 | Lab report | 1989 | 45 | Grademark | 36:48 |
| J6 | female | UG YEAR 1 | Lab report | 2064 | 58 | Grademark | 54:06 |
| J7 | female | UG YEAR 1 | Lab report | 2099 | 62 | Grademark | 36:45 |
| J8 | - | PGT | Evaluation proposal | 2926 | 61.8 | Grademark | 37:40 |
| J9 | female | PGT | Evaluation proposal | 3260 | 74.3 | Grademark | 22:49 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| J10 | female int | PGT | Evaluation proposal | 2842 | 66 | Grademark | 33:05 |
| J11 | - | PGT | Evaluation proposal | 3071 | 52.6 | Grademark | 43:14 |
| J12 | female | PGT | Evaluation proposal | 3292 | 78 | Grademark | 29:26 |
| J13 | female | PGT | Evaluation proposal | 2948 | 66.9 | Grademark | 35:56 |
| J14 | female | PGT | Evaluation proposal | 2431 | 6.8 (F) | Grademark | 35:02 |
| J15 | female | PGT | Evaluation proposal | 3229 | 61.6 | Grademark | 35:05 |
| J16 | male | EdD | Thesis: Literature review | 12016 | Resubmission | Word Comment | 1:56:06 |
| | | | | | | Skype meeting | 1:29:08 |

## Appendix VIII: Sample follow up interview transcript from Anthea

I think I've improved the way I reflect on things through talking to you and thinking about this (.) because normally this stuff just gets done and then it's gone

I right (.) OK

so by having to review it with you and think about it (.) it makes me think in a different sort of way (..) and I'm going to ask you at the end when we finish ask your thoughts on a proposal I'm thinking of making

I OK right good (.) so I've picked out a few things that I wanted to raise just looking at the feedback (.) so the student dialogue and focus I've got here (.) so I sort of went through my questions that I was generating as I was looking at the transcripts (.) so the student (.) so one thing that comes out very very clearly in your oral feedback is your sort of care for the students (.) you're very student (.) you know the students yeah and you seem to yeah care for them (.) it's very different in the written feedback (.) so in the oral feedback is very supportive and as I say you show you care (.) in the written feedback the only positives there are ticks

mm

I In your initial interview you talk about the emotional impact of feedback and that you say good students need you know (.) expect feedback but you don't have a lot to say so I just wondered if you how you feel you deal with that emotional impact if your feedback

when they receive the written feedback they think it's a bit flat for them?

I well I don't know, I mean

I think the fact that they

I I was just struck by the difference you know that was

I think certainly the two sets that I did around Christmas and then the projects (.) essentially the practice essays are voluntary so they've made the extra effort to do that and they're in my office you know ideally I'd do all four at the same time (.) meet them all together but that doesn't tend to happen because

I mm that's interesting

of my schedule so I ended up doing I think I did four in a row because there are only four of them

I you did two students together

oh was it two yeah

I and then two individuals yeah

OK and when I originally did it I did them as a group and that worked fine because they can learn from each other's mistakes then as long as they don't feel embarrassed about it so there's pros and cons of doing it separately or as a group (.) when they get their marks I would like to think that they always look at it against the marking descriptors (.) and I imagine some don't do that (.) but usually if they're getting lots of ticks they'll get a good mark and I know that they probably look at that first anyway, so I'm sort of thinking that they're getting additional feedback from knowing where they are on the marking descriptors as well

I so positives OK yeah

so it's so long ago I can't remember

I it's interesting because you said pros and cons of working as groups (.) it was really interesting as well that what you focused on in the oral was slightly different to what you focused on the written (.) in the written it's very much looking at content you know have they included this this this and it might be because of the task it might be because of the mode I don't know (.) in the oral there was a lot more coming out about the process and even when there were the two of them together there was even more sort of generalisation and feed forward going on so it was noticeable how much you know

is that because they'd had different sort of styles hadn't they and I remember them having made different mistakes or left out different things so we could compare and contrast what they'd done to help

## Appendix IX: Sample oral feedback event from Colin

I OK so this is [redacted] marking [redacted]'s data summary could you just confirm for the tape that you've read the consent form and you're happy with it and for this to be shared

yeah yes that is fine

I good OK so I've read your um (.) your data summary here um so I'm going to start by looking at your results and your results are pretty **good** actually umyou've got (.) uh nice clean NMR spectra here you've got nice pointy IR spectra here (.) which is what I'm looking for um you've correctly picked up on the quintetness of this peak down here which is a [mumbling] between the phosphorous and the hydrogen um so your results are really good actually um (…) not much wrong with that so:: as far as your **writing** goes uh (..) you need to work a little bit on your scientific tone [OK]on using proper scientific words not slang expressions that we use in the lab

Slang

I Well for example you don't **take** a spectrum [ah] you **record** a spectrum yes

ah OK yeah

I you don't pipette things off

oh yeah, [laughter] reading that back that made sense

I things like that (.) um and the other thing is well I'm going to upload the recording to the event so you can listen to that sometimes (…) left in the freezer again is [laughter] you know stored at minus 10 would be fine but left in the freezer kind of is what you do with bits of meat and stuff like that um

OK

I so you know scientific terms is just one of things you have to practice until you've got the hang of it (.) the other thing is here you've written turned deep orange in colour.

yes

I well it's not going to become deep orange in temperature is it or or [yeah] so you know just become deep orange three words instead of six [laughter] so you kind of (…) um precision and accuracy type things but it's just a practice thing um (..) your data is presented **nicely** I've (…) there's one mistake here when you've done the integrations for your second compound here

yeah they're all weird

I yes so in principle you've got 30 hydrogen atoms

I know yeah

I 10 plus

yeah I didn't pick up on that

I and I think that's probably because of the (.) well I know why it is actually

oh

I so the first thing is your chloroform peak often overlaps with this but it looks like it hasn't

## Appendix X: Sample of think aloud transcript from Jay

so conclusion  in summary the findings  I'll also put it would be good to [typing] I'd really like to see you discuss your qualitative data thinking about the nature of the pro stroke antisocial interactions  I'll put commenting on she's kind of missed an opportunity there really um (…) OK [reading] in summary the findings show that boys display more pro-social behaviours such as being kind caring and looking out for people moreover the observational research shows that in cross-sexes the interactions are less [sigh] fewer please antisocial interactions this implies that when children are around their own gender they are more antisocial OK I'll put [typing] see previous comment about claims that you can make

[0:26:09] - [0:26:35]

OK girls displayed more antisocial behaviours this shows us that girls are OK so I need to say uh [typing] remember [laughter] that **all research** is context dependent how far can you really generalise from this study OK

[0:27:03] - [0:27:19]

so that's good because she's actually referring to past research so [typing] good to see you reflecting on your work in the light of previous research

[0:27:38] - [0:28:19]

OK I'm just she's kind of talking here about [sigh] her findings you know more pro-social boy boy and more girl boy pro-social than girl girl but the figures are so close that she can't really say that  so I'll put your data so [typing] the differences in your data are very minimal

[0:28:52] - [0:29:01]

hard to confidently claim this OK

[0:29:15] - [0:29:26]

I'm going to comment on her use of kids because it's annoying me now  so uh [typing] try to use more **less** informal language kids not really appropriate (.) OK [reading] this may reflect the current era of stereotypes getting weakened through hmm possibly  I'm going to put I like that she's thinking about cultural stroke contextual explanations [typing]

[0:30:09] - [0:30:23]

overall for a first year piece of work this is actually very competent [reading] this is presuming that behaviours are learnt and not innate [laughter]  yeah

[0:30:34] - [0:30:46]

OK [reading] findings are useful in that they show us that gender stereotypical behaviours aren't apparent in everyone this suggests that perhaps where are we gender specific roles are beginning not to exist [mumbling] [typing] or maybe just weakening

[0:31:15] - [0:31:25]

I like that she's trying to think about implications as well she's not doing it brilliantly but I like that she's doing it [typing]

[0:31:32] - [0:31:49]

OK I don't think she refers to her appendix at all in her methods OK oh no she does so appendix

[0:32:04] - [0:32:21]

so [typing] be consistent in your referencing formatting use APA conventions OK (…) she's kind of used APA some of the time but not all of the time I'll put you're also being [typing] inconsistent **between** references OK not a bad attempt though so let's have a look at this **so** let's have a look so knowledge and understanding mm I'm kind of on (…) I'm going to go with excellent for that I think she's done well oh God how do I (.) oh here we go just type a little

## Appendix XI: Guidance notes for recording a think aloud

Guidance Notes for Think Alouds for Maxine Gillway's Research Enquiry

Aim: To get inside your head as you give feedback on student writing

I will transcribe the audio recording that you produce and check that you are happy about any extracts that I would like to include in my work. These extracts will be used completely anonymously.

Guidance:

1. Do a quick check that the Digital Voice Recorder I have given you is working before you start the main recording.
2. Imagine you are talking to me (if this seems helpful). Alternatively, imagine it as an audio-diary entry.
3. Give me a bit of background of where you, what time it is, how you are feeling…
4. Keep talking! Give me a running commentary of what you are doing starting right from how you decide which paper to start with…
5. Do a continuous recording of about an hour – or a bit longer if you are still on one paper!

Hints:

- I am interested in both what you are doing and why you are doing it – including the things that you are aware that you are not doing and why not.
- I'd like to hear your decision making processes, your emotional responses (probably not written), your rationalized responses as you write feedback, and generally any thoughts you have as you go through the process of marking some student scripts.

When you have finished, let me know and I will arrange pick up of the voice recorder.

Thank you for your help with this.

Maxine

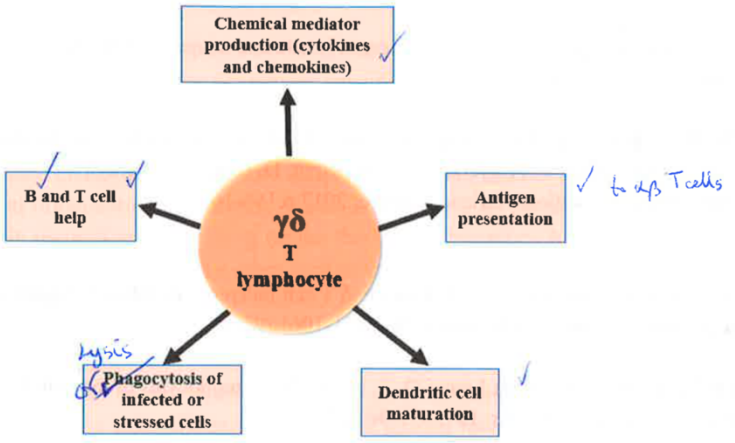



**Figure 2: Main functions of γδ T lymphocytes, exhibiting both innate and adaptive characteristics.** (Adapted from "Figure 3: Six of the best γδ T cell functions" in Vantourout, P. & *Hayday, A.* Six-of-the-best: unique contributions of γδ T cells to immunology. *Nat. Rev.Immunol.* 13, 88-100 (2013) [5])

In conclusion, γδ T lymphocytes are a very important cell subset, not only because of their contribution to immune responses but also because they represent excellently the concept of innate-like lymphocytes, bridging innate and adaptive immunity carrying out effector and helper functions in both. They do not have any specific special roles. However, exhibiting a combination of several different innate and adaptive functions makes them stand out and highlights their unique importance. This is because they can contribute to the immune response at several different time points, (for example; both during early phagocytosis and the later adaptive specific activation of αβ T cells), unlike other subsets of innate-like lymphocytes which focus more on the production of a rapid rather a long-lasting response, such as MZ B cells.[10] Lastly, it is important to note that while γδ T cells enhance the processes leading up to the establishment of immunological memory- by helping the conventional B and T cell response, it is not yet known whether themselves possess the ability to develop such memory. It is clear that further research needs to be conducted to resolve such questions along with the cells' promising ability to be used in immunological treatments.

What serving as an APC

Very good overall.
You could have mentioned the importance of γδ T cells in neonatal animals and the role of growth factor production in epithelial repair.

## Appendix XIII: Sample written feedback from Jay

aggression was defined as any instance where a c[illegible]was name-calling or using their words with the intention to cause emotional harm to another child. After reading Ostrov's research into pre-school aggression, we sub-categorised the behaviour categories into submissive, and dominant behaviours. Submissive behaviours, which have culturally been associated with being female behaviours, we defined as being pro-social behaviours, relational aggression where no dominance is seen to be enforced over the group. Dominant behaviours, which have culturally been associated as being male behaviours, included physical and verbal aggression as some sort of power is asserted over a group with this type of behaviour. The coders worked in pairs to practis[illegible] coding of behaviour until there was an accurate agreement on categorisation of behaviour to ensure the coding was consistent on the real observation. The coding was cross-checked by the coding team on categorisation and consistency. To ensure inter-observer reliability, the coders where present when the behaviour categorises were chosen so no misunderstanding or misinterpretation could occur. Any discrepancies highlighted were resolved through discussion, and in some cases the video was replayed at the point where coding did not match, so any uncertainties could be resolved. There was 100% agreement on behaviour categorisation.

Video observation is g[illegible]cause it allows for replay if any uncertainties are raised. This gives it good ecological validity. Although, seeing as the children knew they were being observed, the findings will lack generalisability and external validity due to the possibility that the children displayed demand characteri[illegible]his kind of video observation can be seen as an unreliable source as the documentary went through an editing process, meaning some of the children's behaviours may have been taken out of cont[illegible] ensure that there was high inter-observer reliability, each coder was equipped with the same detailing regarding behaviour categories, and each set of coding was later reviewed for any outlying data. It could be said that using video observation lowers the

### Comment 6

These are really thorough and precise definitions of each category, well done.

### Comment 7

OK I see why you have included this in the lit review discussion now.

### Comment 8

What characterises an instance of behaviour? How do you decide where the instances starts and stops? What about two concurrent behaviour instances?

### Comment 9

proof read carefully!

### Comment 10

You have explained your collaborative process of coding clearly.

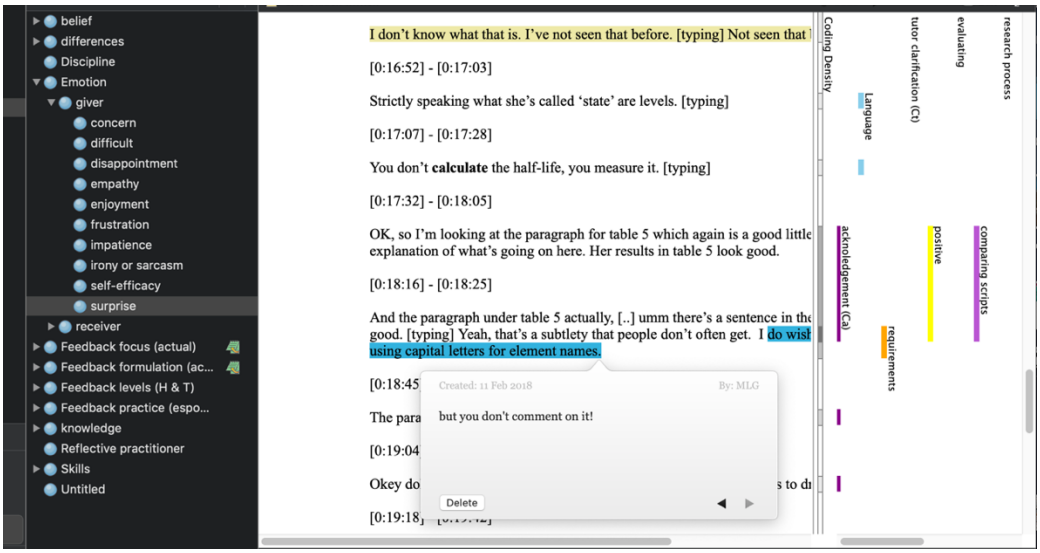
### Comment 11

I think you mean that this can help resolve any issues around inter-rater reliability?

### Comment 12

good that you have recognised this.

## Appendix XIV: Sample NVivo coding



## Appendix XV: Key to transcription conventions

| | |
|---|---|
| (…) | Pause – one dot = one second |
| [0:01:30] - [0:01:38] | Longer pauses |
| [*laughter*] | Non-verbal sound |
| [*enunciated very slowly*] | Information about speed, pitch, intonation |
| No:: | Noticeably elongated syllables |
| ..<u>their belief God no</u>… | Overlapping speech (underlined) |
| [yeah ] | Researcher speaks during participant turn |
| **thrived** | Participant emphasis (in bold) |
| | Researcher emphasis (in colours) |
| ‘It’s not red’ | Voice external to interview in quotation marks |

## Appendix XVI: Predefined and new (bolded) codes that emerged

| | | |
|---|---|---|
| belief | **Differences** | **Assessment type**<br>**Feedback givers**<br>**Group size**<br>**Individuals**<br>**Levels**<br>**Past present**<br>**T vs st perspectives**<br>**UOB vs other unis** |
| | **discipline** | |
| | feedback | dialogue<br>inconsistency |
| | Higher education | |
| | knowledge | Assessment<br>Feedback<br>Teaching in HE<br>UOB principles |
| | **learning** | Acquisition<br>Development<br>**Own experience**<br>participation |
| | skills | Feedback<br>teaching |
| | Student role | |
| | Teacher role | |
| | T/st relationship | |
| | **teaching** | |
| | Written assessment | |
| **emotion** | **giver** | **Concern**<br>**Difficult**<br>**Disappointment**<br>**Enjoyment**<br>**Frustration**<br>**Impatience**<br>**Irony/sarcasm**<br>**Self-efficacy**<br>**surprise** |
| | **receiver** | **empathy**<br>**Happy**<br>**Self-efficacy**<br>**silly** |
| Feedback focus (actual) | **Comparing scripts** | |
| | content | **Ca, Ce, Ci, Co, Cs, Ct,**<br>level of analysis<br>Sense making<br>specificity |
| | **evaluating** | |
| | **Exam technique** | |
| | language | |
| | organisation | |
| | **Other unit** | |
| | **ownership** | |
| | **reading** | |
| | requirements | |
| | **Research approach** | |
| | **Research process** | |
| | **Student identity** | |
| | **transferability** | |
| | **Visual summary** | |
| | **Writer responsibility** | |
| Feedback formulation (actual) | **Aside to researcher** | |
| | Audience awareness | |
| | elicitation | |
| | Imagined dialogue | |
| | **Non comment** | |
| | **positive** | |
| Feedback levels (H & T) | process | |
| | self | |
| | Self regulation | |
| | task | |
| Feedback practice (espoused) | focus | |
| | formulation | |
| | helpful | |

| | | |
|---|---|---|
| | hindrance | Anonymity<br>Group size<br>Other fbgs<br>Policy<br>Student level<br>Task length<br>Technology<br>Time pressure |
| | mode | |
| **Reflective practitioner** | | |
| **Research process** | | |

## Appendix XVII: Ethics form

Department of Education | UNIVERSITY OF BATH

Doctor of Education

ETHICAL IMPLICATIONS OF PROPOSED RESEARCH

To be completed by the student and approved by the supervisor before any data collection takes place. Before completing the form, students should read the guidelines published by the British Educational Research Association (BERA), which are available in Moodle.

Introduction

| Full name of student:<br><br>Maxine Gillway | Student number:<br>[redacted] |
|---|---|
| Provisional title of your study:<br><br>A cross-disciplinary exploration of the relationship between teacher beliefs, context and feedback practices on written assessments | |
| Justification for your study:<br><br>There is a gap in published research around the perspective of academics in the feedback process (Dunworth & Sanchez, 2016; Evans, 2013) and in particular concerning the nexus between individual beliefs, context and practice. My institution has recently released institutional principles for assessment and feedback and I am interested to see the extent to which personal and disciplinary beliefs support or hinder the implementation of the institutional principles. The findings may have significance for the design of Continuing Professional Development relating to feedback, which in turn may impact the student experience in terms of equity of feedback received. The results will also contribute to a greater theoretical understanding of the link between teacher beliefs and tutor feedback and could thus inform the positioning and role of tutor feedback in CPD. | |

Participants

| 1. Who are the main participants in your research (such as interviewees, respondents)?<br>Members of staff at the University of Bristol who give feedback on written work to both UG and PG cohorts will be asked to participate in<br>a) a semi-structured background interview of approximately 1 hour early in the academic year;<br>b) an audio self-recording of their thoughts as they give feedback to a sample of current students on a piece of written work (think aloud protocol);<br>c) a follow-up interview to discuss some of their feedback choices. |
|---|

I would also require access to previous feedback on the written work of two different levels of student.

2. How will you find and contact these participants? Initial contact will be made through internal email from the Academic Staff Development Unit to participants on the Feedback module of the Teaching and Learning in Higher Education programme in current and past academic years. This email will introduce me and attach an information sheet. Any interested individual will respond to this email by contacting me. I will then arrange an informal chat to provide more information about the study and acquire a signature on the informed consent form if the individual wishes to proceed as a participant in my research. If this method fails, I will approach individual academics who teach students we deal with in our Academic Language and Literacy sessions.

3. How and from whom will you obtain informed consent and communicate the right to withdraw? The feedback givers to be interviewed and recorded in my study will be sent an information sheet in an initial contact email. If they express a desire to be part of the study, a face-to-face appointment will be made and at that meeting the prospective participant will be asked to sign a consent form.

4. Have you approached any other body organisation for permission to conduct this research? no

5. At what stages of your research, and in what ways will participants be involved?
Initial semi-structured background interviews early in the academic year;
Self-recording of think aloud protocols while giving feedback on a sample of student written work (either

formative or summative);
providing access to feedback given to students at different levels;
follow-up stimulated recall interview soon after think aloud protocol is recorded.

6. Have you considered how to share your findings with participants and how to thank them for their participation?

Participants would be sent my write up of the background interview for an accuracy check. I will send a thank you letter to all participants at the conclusion of my data analysis stage and offer them the option of a brief written report of my findings or the opportunity to meet to discuss them individually.

Deception and exploitation avoidance, confidentiality, privacy and accuracy

7. How will you present the purpose of your research? Do you foresee any problems?
I will present it as exploratory research on the relationship between beliefs, context and practice of

feedback. The purpose of my study should not pose any particular problems as it will probably be accepted as topical and logically linked to my role as director of the Centre for English Language and Foundation Studies, which works to help unpack feedback for international students. If participants require further information about the specifics of the study, I will arrange to meet them for an informal chat.

My need for participants in an EdD research enquiry will be explained in an email to potential participants from the Academic Staff Development Unit with an attached information sheet. One problem with this may be that I am seen as part of the establishment that has drawn up the institutional principles for assessment

| |
|---|
| and feedback - I am not, and this will need to be made clear by highlighting that it is an independent study.<br><br>Another methodological issue may arise if the participants attempt to 'perform' their feedback in a way linked to their beliefs as stated in interview. To counteract this, I would hope to have the initial interviews far enough in advance of the feedback recording for participants to forget exactly what was discussed and thus not be unduly influenced by their beliefs as stated on the interview day in their recorded feedback practice. Access to previous written feedback would also serve as a check to see if the feedback produced on the day of recording is in line with other samples. |
| 8. In what ways might your research cause harm (physical or psychological distress or discomfort, or threat to self-esteem) to yourself or others? What will you do to minimise this? Would access to support be available (if appropriate)? I would avoid being judgemental in any way on the feedback options chosen or the beliefs expressed. I would stress that participation is voluntary and participants can withdraw at any time should they feel uncomfortable. I would ensure confidentiality and anonymity at all stages of the research. I would hope to establish a relationship of mutual trust and support between peers in a joint endeavour to improve the feedback experience for staff and students. |
| 9. What measures are in place to safeguard the identity of participants and locations? Are there special circumstances for consideration e.g. special populations? The participants would be given pseudonyms in the thesis and any related presentations or publications of the work. The voice recordings would be |
| destroyed at the end of the EdD and only the researcher would have access to them. Only transcripts would be used in the presentation of the work. Students will have already given consent for their work to be used anonymously for research purposes. At no point will student work be identified or referred to in the study. Only tutor feedback on that work will be included. Participants will be asked to approve of any background information that is included so that they remain non-identifiable if required. |
| 10.How will you record information faithfully and accurately?<br>Voice recordings of interviews and think aloud protocols will be transcribed verbatim and sent to participants for an accuracy check. |

11.Any additional information:

| | |
|---|---|
| Student: | Signature: Maxine Gillway Date: 2016-08-21 |
| Supervising Member of Staff: | Name: Dr Hugo Santiago Sanchez<br><br>Signature:<br>Date: 19.09.2016<br>  |
| Director of Studies (For Research Enquiry Stage) | Signature: Date:10.10.16<br>  |

NB

Students should send a signed copy of this form to their tutor (for taught modules) or to the Director of Studies (at candidature), before any data collection takes place. A nil return is required for students not doing empirical work. Supervisors should retain a copy for their own records.